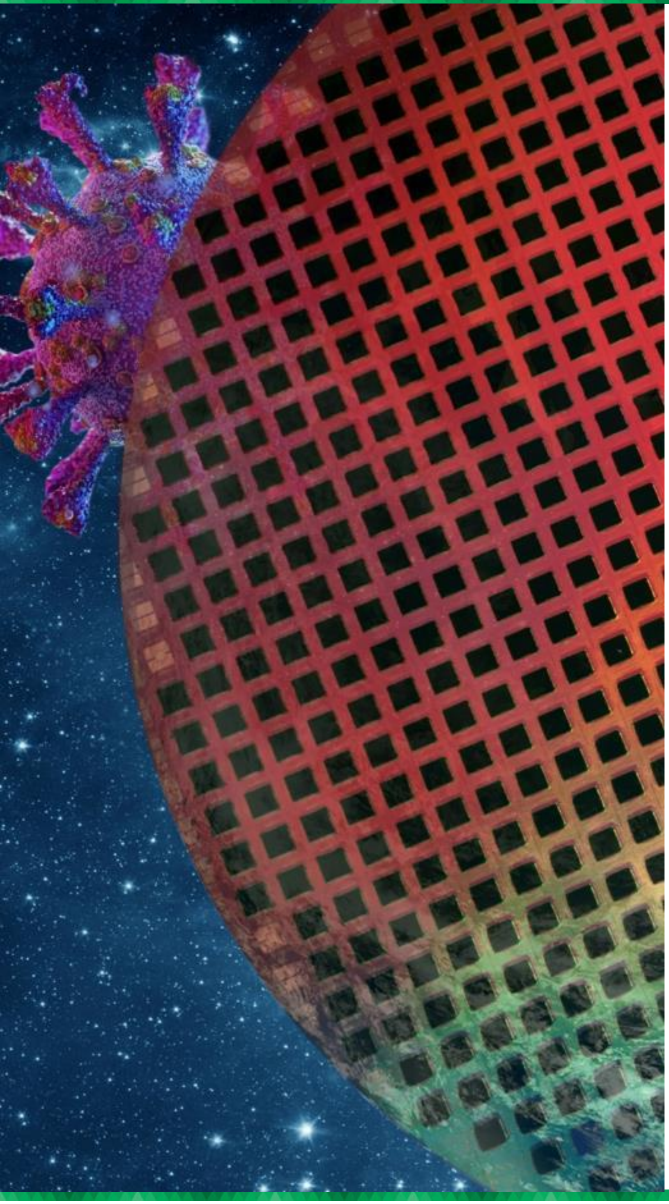


INVESTOR PRESENTATION
Q4 and FY 2022 RESULTS

February 22, 2023

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

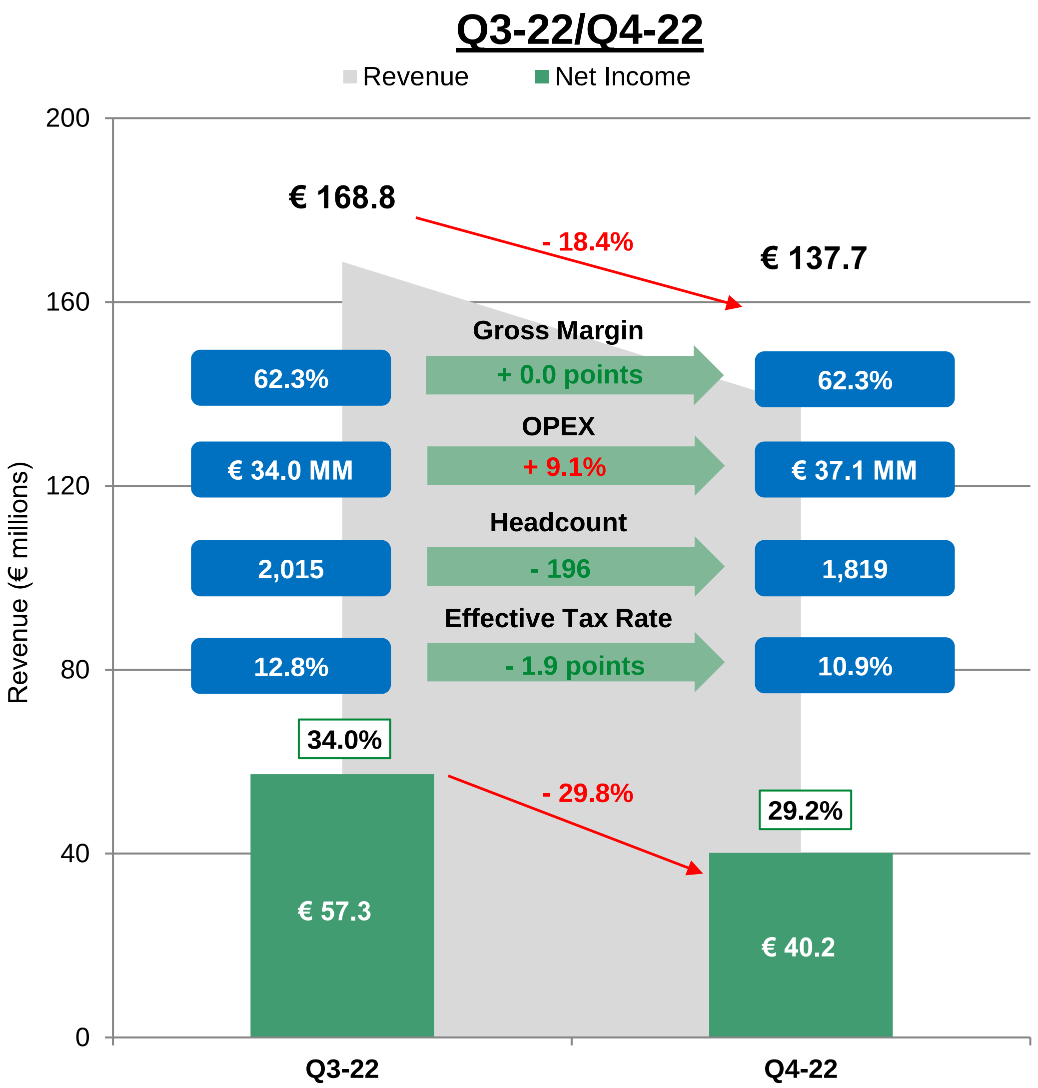
I. KEY HIGHLIGHTS

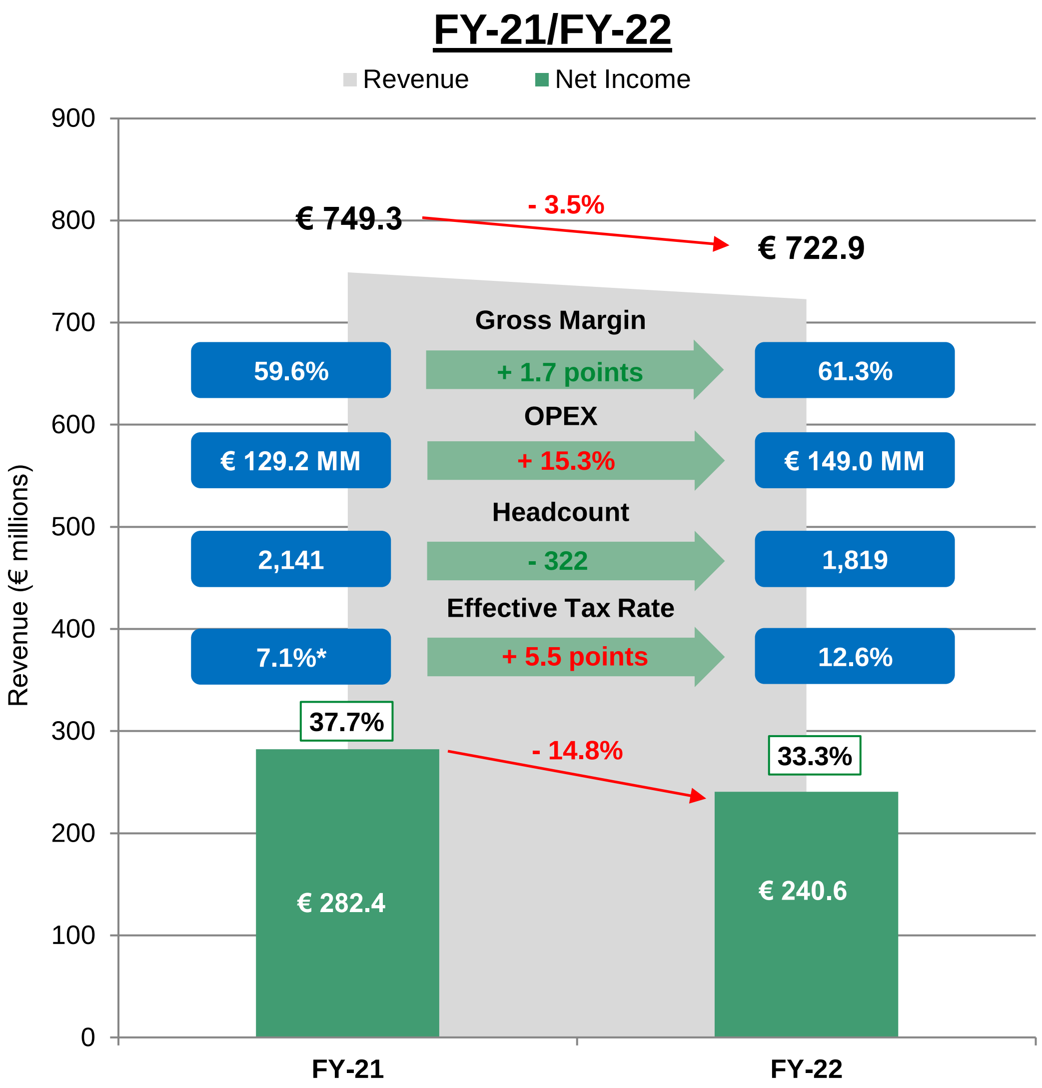
Q4-22 Operating Income Above Expectations
Orders Up 44.1% vs. Q3-22

€ millions	Guidance Q4-22*	Q4-22	∆ Q3-22	∆ Q4-21
Revenue	Down 15% - 25%	**137.7**	-18.4%	-19.8%
Orders		**180.5**	+44.1%	-10.9%
Gross Margin	60-62%	**62.3%**	-	+5.6pts
Opex	Up ~5%	**37.1**	+9.1%	+22.4%
Operating Income	46.7**	**48.7**	-31.6%	-27.5%
Net Income		**40.2**	-29.8%	-40.1%
EPS Basic		**0.51**	-28.2%	-40.7%
Net Cash		**346.5**	+1.2%	-6.5%

* As compared to Q3-22
** At midpoint of guidance range

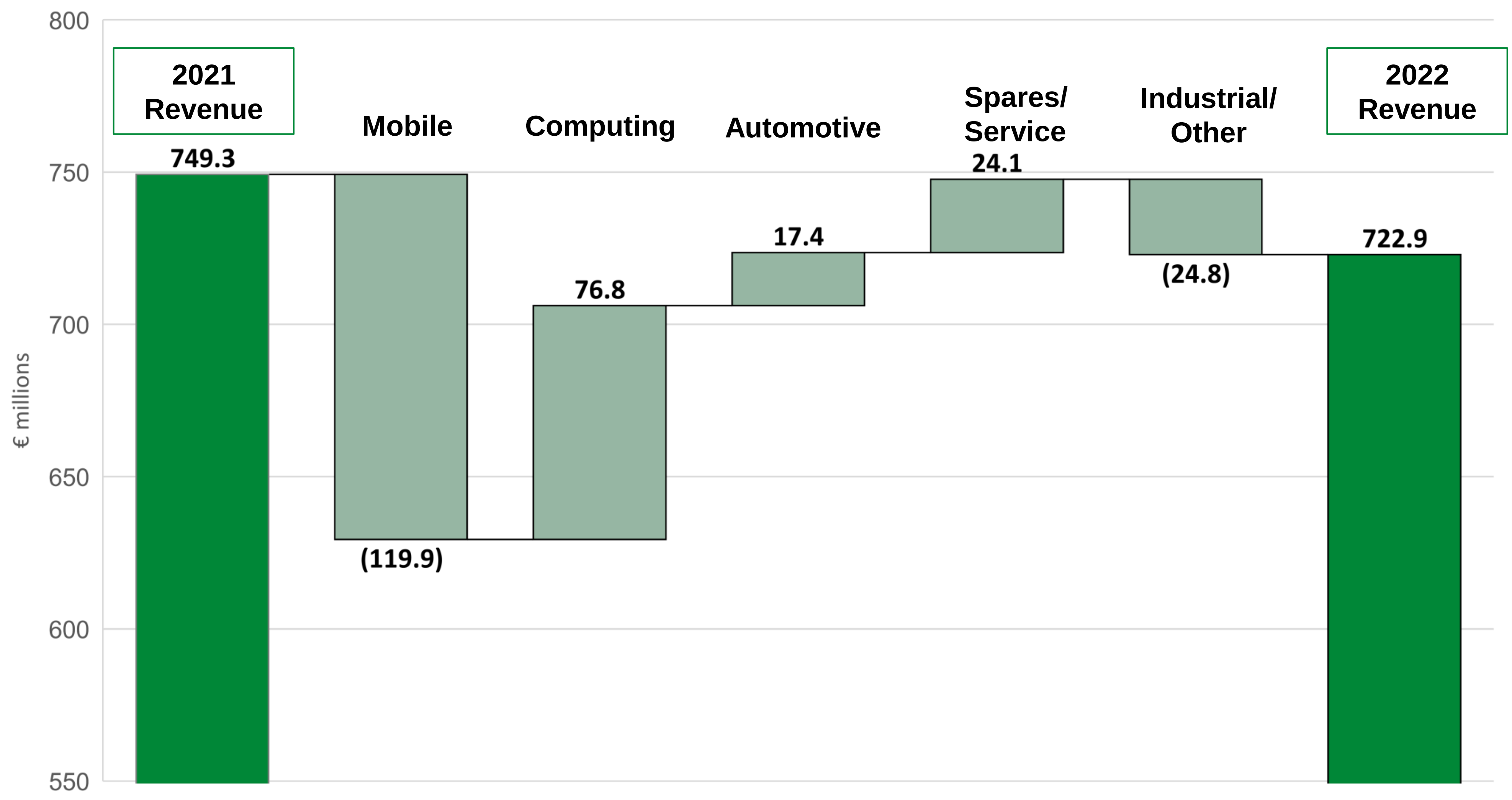
FY-22 Revenue Down 3.5%. Gross & Net Margins Achieved of 61.3% and 33.3% in Challenging Environment



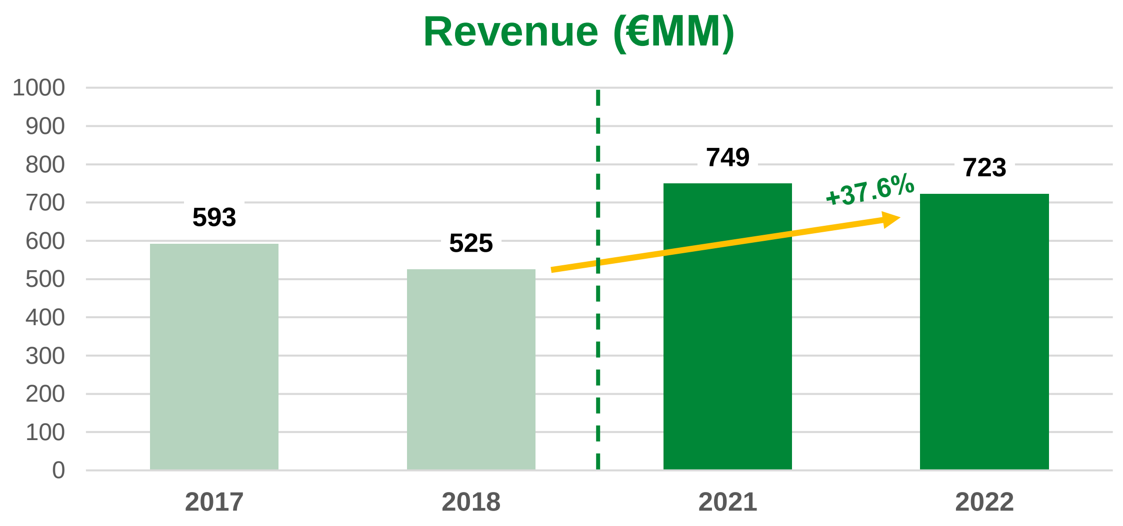


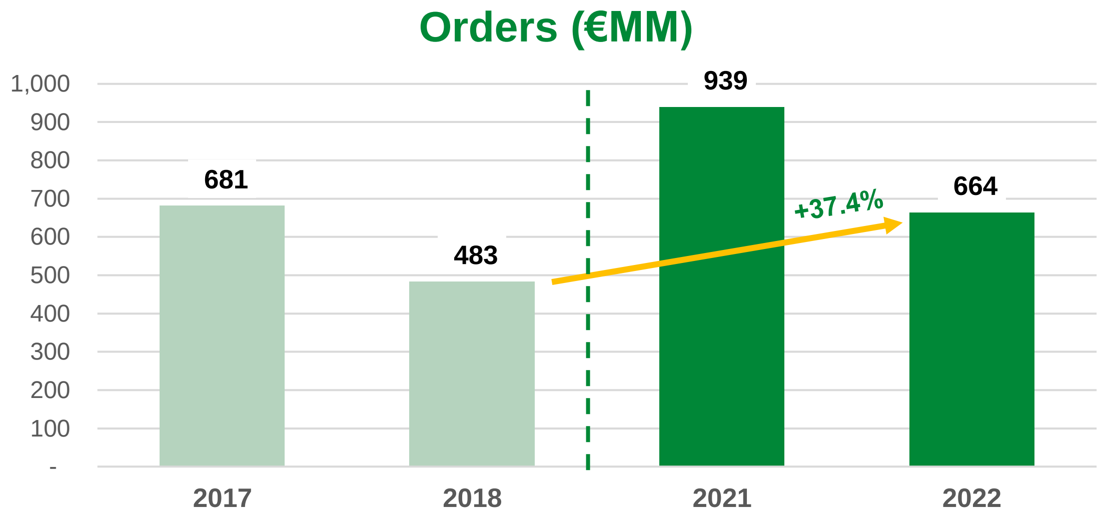
* Effective tax rate for 2021 reflects € 15.0 million of deferred tax benefits. Ex such benefits, the effective tax rate would have been 12.0% and net income would have been € 267.4 million

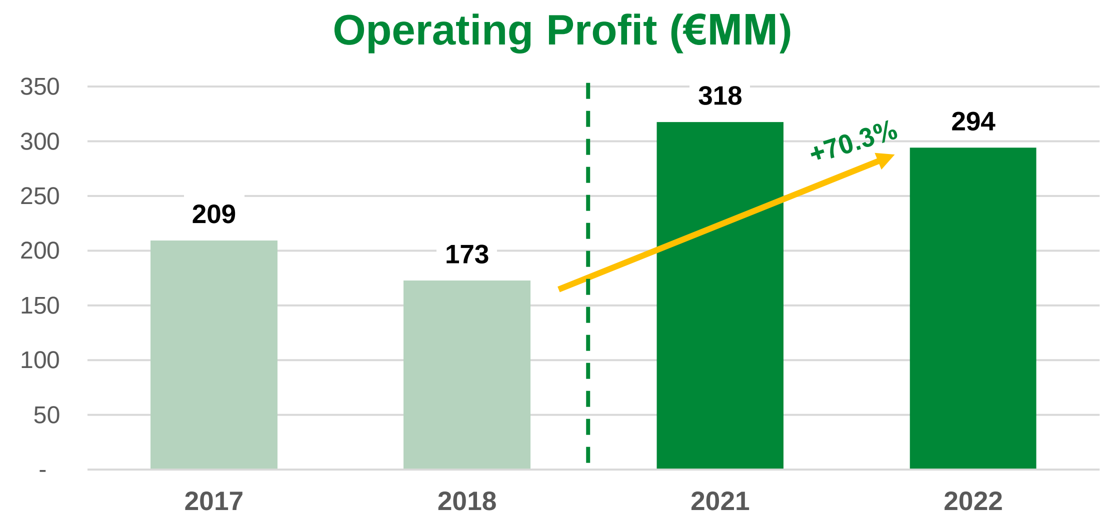
End User Market Trends 2021/2022

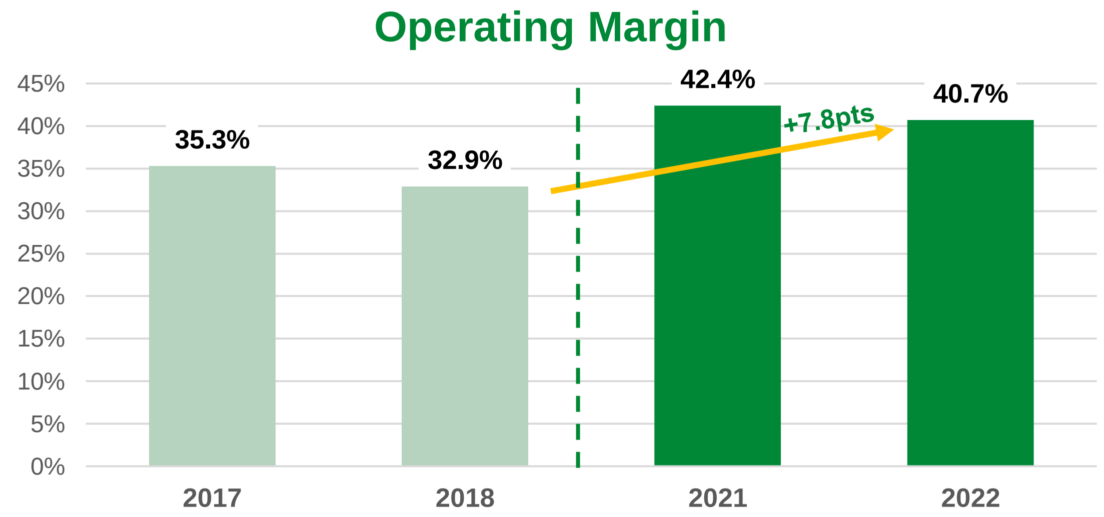


Performance Significantly Above Last Industry Downturn

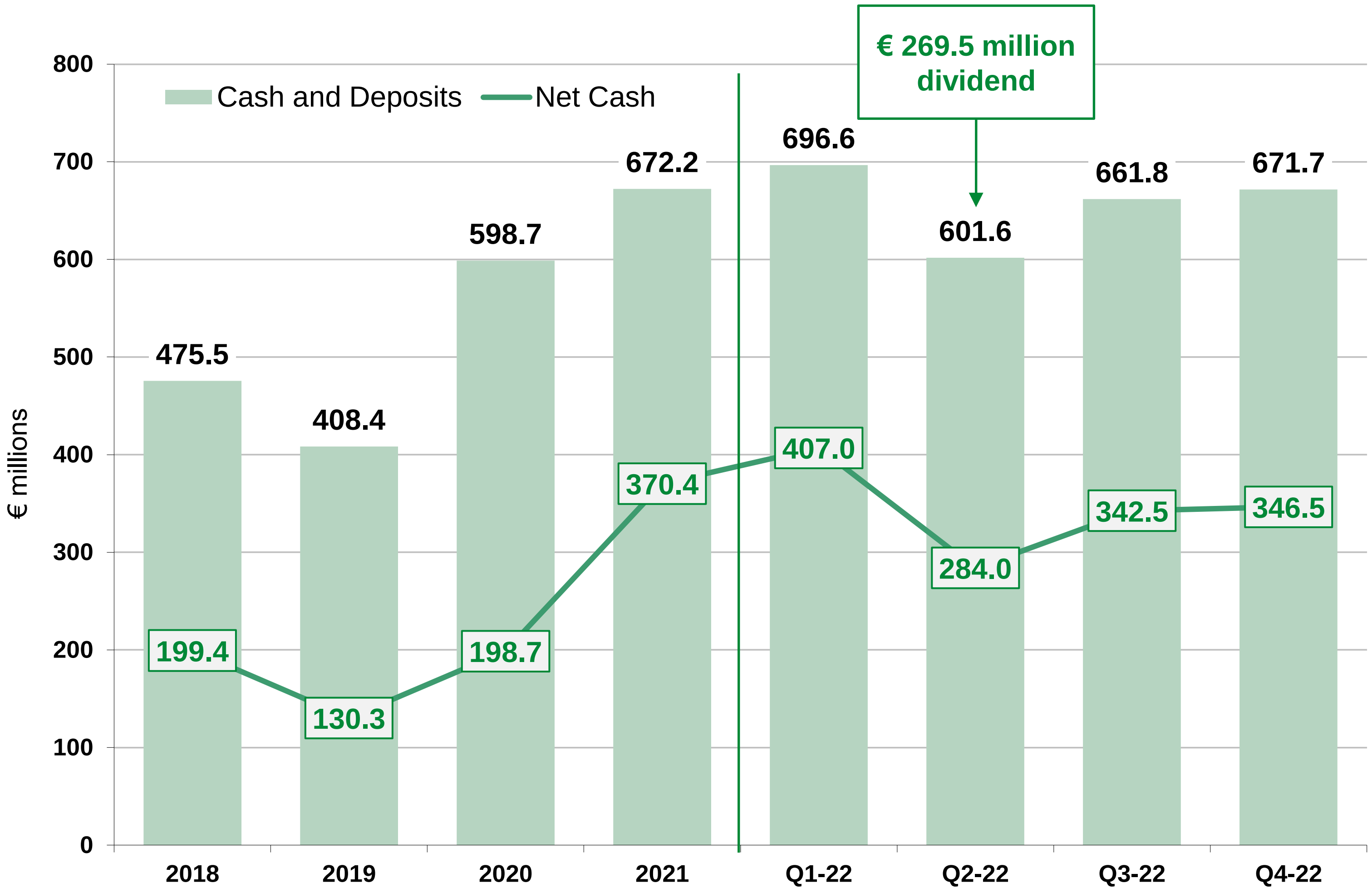








Strong Cash Flow Generation Continues



Q4-22 vs. Q3-22

- Cash and deposits of € 671.7 million up € 9.9 million primarily due to:
  - + € 86.6 million cash flow from operations
  - - € 65.0 million share repurchases
  - - € 5.5 million capitalized R&D
  - - € 2.1 million capex
- Net cash up € 4.0 million to € 346.5 million

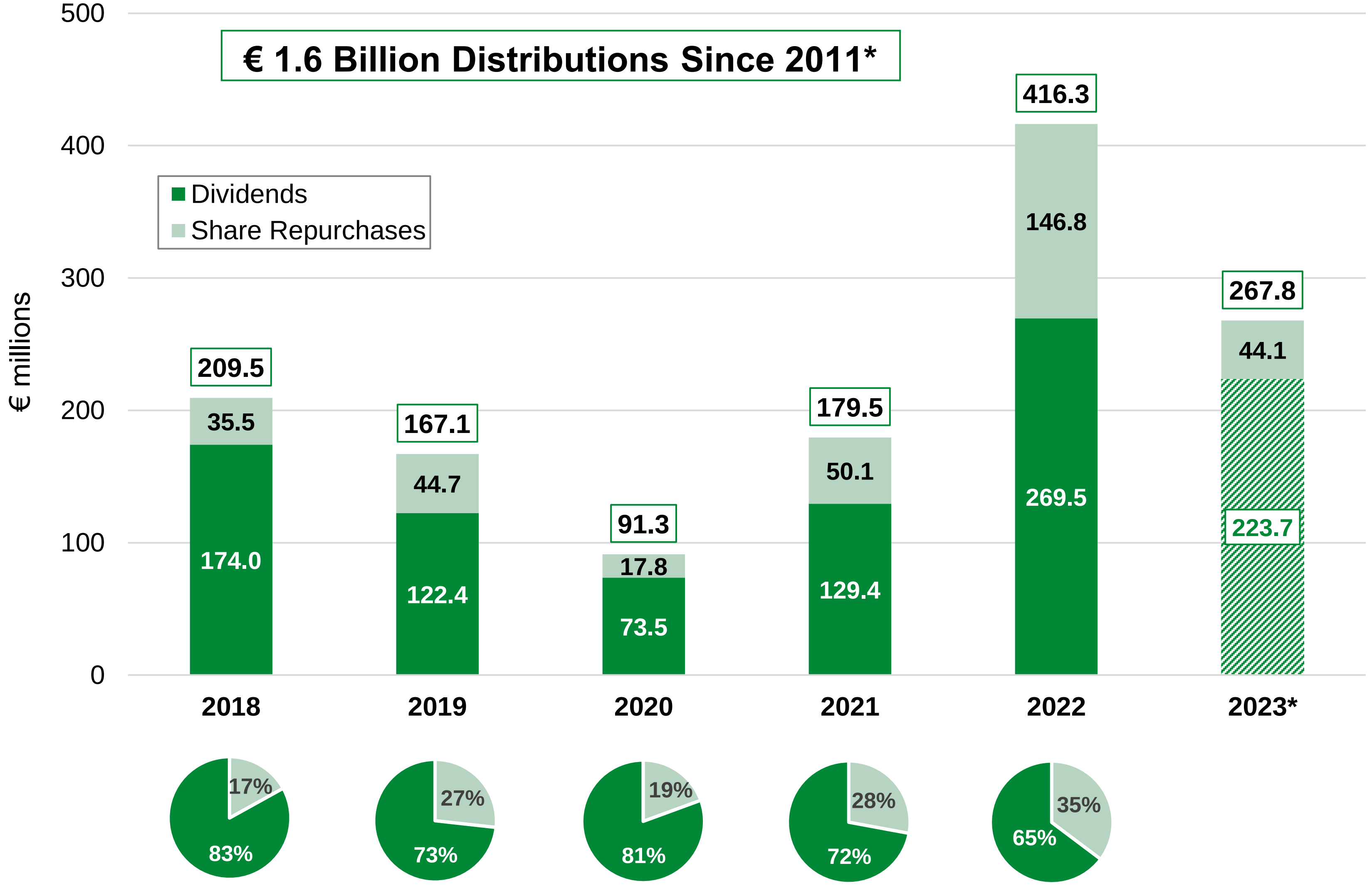
Q4-22 vs. Q4-21

- Cash and deposits relatively flat despite 132% increase in capital allocation
- Net cash down € 23.9 million (-6.5%)

Convertible Notes

- € 359.9 million at December 31, 2022
  - Average conversion price € 67.28
  - Blended rate 1.29%

Capital Allocation More Than Doubled vs. 2021
Share Buybacks Increased to € 146.8 million

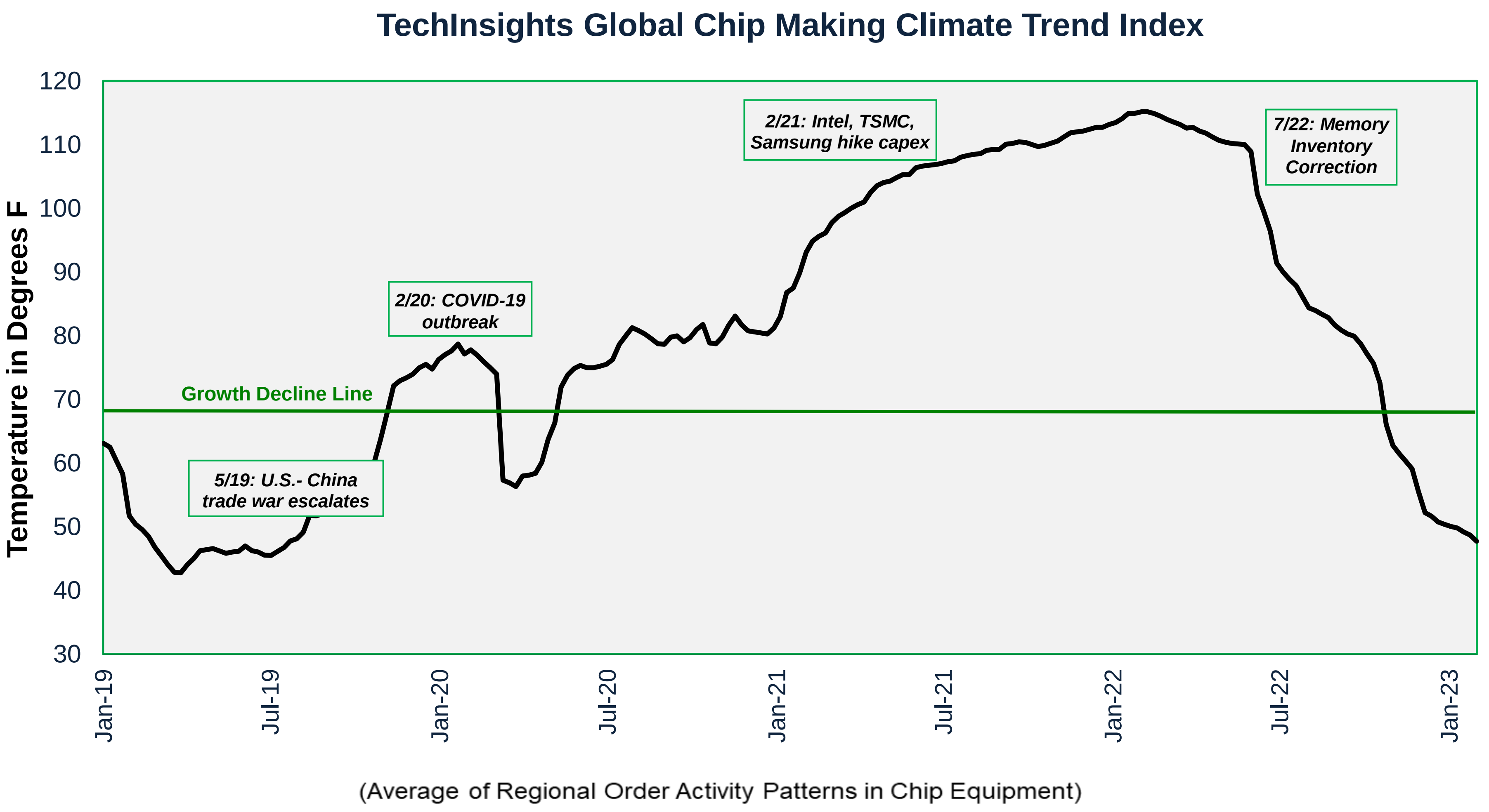


- **Record € 416.3 million distributed**
- **New € 300 million share buyback program:**
  - Started August 1, 2022
  - Expected completion October 2023
  - ~1.8 million shares purchased under new program through year end for € 96.4 million
  - Additional ~670k shares purchased in Q1-23 through Feb 21, 2023

* Includes proposed dividend of € 2.85 per share for approval at 2023 AGM and share repurchases up to February 21, 2023

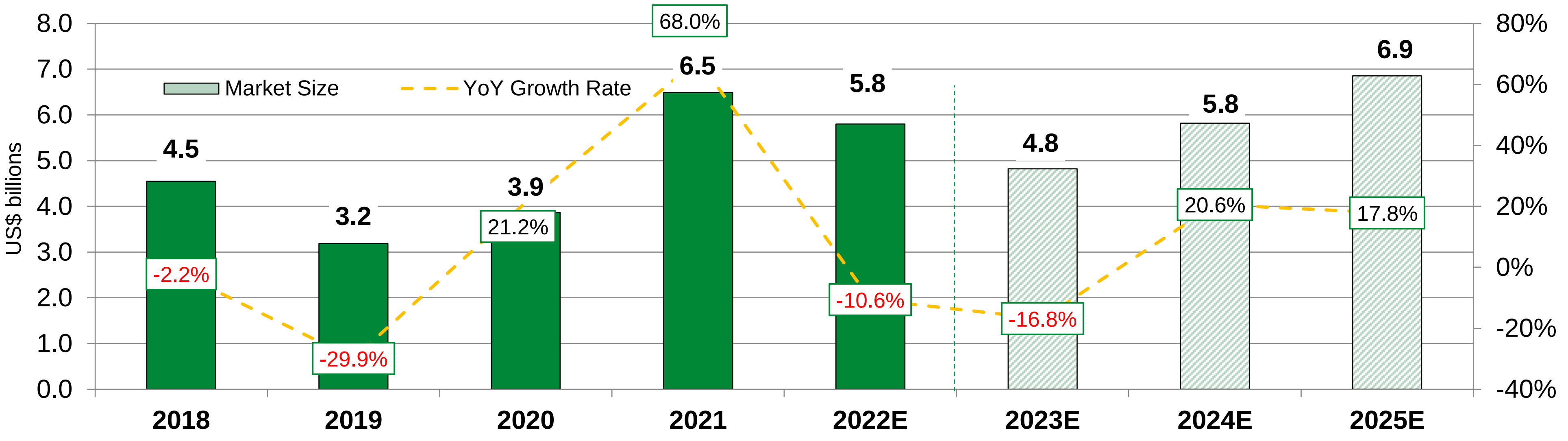
II. MARKET & STRATEGY

Market Conditions Have Weakened Significantly Since Q2-22

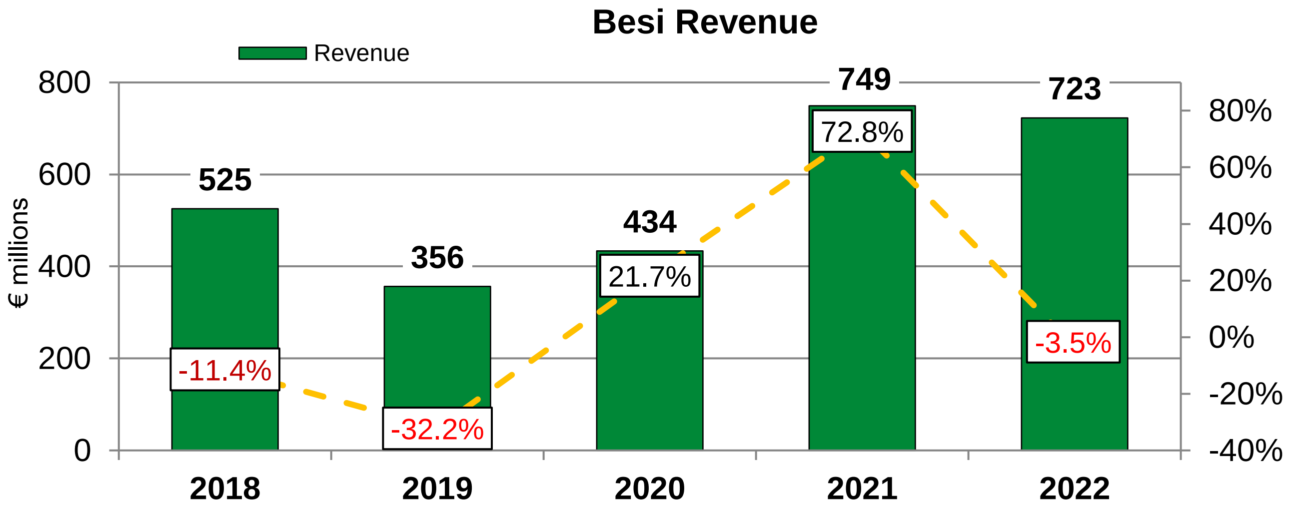


Source: TechInsights, February 2023

Downturn Expected to Continue in 2023. Rebound Forecast in 2024



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



TechInsights forecasts 16.8% downturn in 2023
- Market decreases to $4.8 billion
- ~26% decrease from 2021 peak
- Strong rebound anticipated in 2024 and 2025

Strong secular fundamentals intact however:
- AI, datacenter, HPC, 5G primary drivers
- Investment in new process technologies: hybrid bonding/CSP
- Onshoring new advanced packaging fabs

Strategy Update

Business

- Responded effectively to industry downturn
- Expanded R&D investment for next generation applications
- Significant progress on wafer level assembly portfolio
- Key ESG targets exceeded
- Capital allocation to shareholders increased

Development

- Gross R&D spending increased 23% in 2022 to reach € 63.8 million
- Increased development staff in Austria, Singapore, Taiwan and the US
- Enhancements to advanced packaging portfolio for next-gen applications
- Introduced embedded bridge die attach and TCB chip to wafer systems
- Hybrid bonding commercial production started
- Established new Malaysia and Singapore cleanroom facilities to increase capacity

Operations

- 125,000 square foot facility in Malaysia added to facilitate future growth
- Increased capacity to 12-15 hybrid bonders per month
- Retrofitted Malaysian facilities to better protect against potential flooding risk
- Began work on tooling and support facility in Vietnam

Hybrid Bonding Update

Besi

Industry Adoption

- Active development by leading semiconductor producers
- Full scale commercial production for high performance CPUs
- Memory applications in R&D phase
- Chiplet interface standards being developed

Besi Progress

- 35 units shipped since Q4-21
- 28 units shipped in 2022
- 14 new orders post Q3-22
  - 3 to date in Q1-23
- Production yields increased significantly
- Cycle times reduced
- First orders received for HB systems in integrated lines
- Capacity expansion in progress

Significant ESG Progress. Key Targets Met or Exceeded

Process Pillar	2022 Target	2022 Progress
Environmental Impact	15% Reduction in Scope 1 & 2 emissions vs. 2019 index	64% Reduction in Scope 1 & 2 emissions intensity vs 2021
	5% reduction in hazardous waste	Relative and absolute reduction in hazardous waste
	25% energy from renewable sources	Energy generated from renewable sources increased from 20% to 76%
	Develop targets for sustainable design	Initiative developed for 10% reduction in die attach platform energy consumption
People Wellbeing	Increase % local managers to 85%	Increased % local managers to 88%
	Increase % female managers to 20%	Achieved 20% female managers
	Increase training hours by 15%+	19% increase in training hours
Responsible Business	70% Purchasing Volume to sign CFSI	73% Purchasing Volume signed CFSI
	75% Purchasing Volume to sign GWA	77% signed GWA

III. OUTLOOK

Guidance Q1-23

Revenue

Q4-22	Q1-23
€ 137.7	0% - -10%

€ in millions

Gross Margin

Q4-22	Q1-23
62.3%	61%-63%

Baseline Operating Expenses

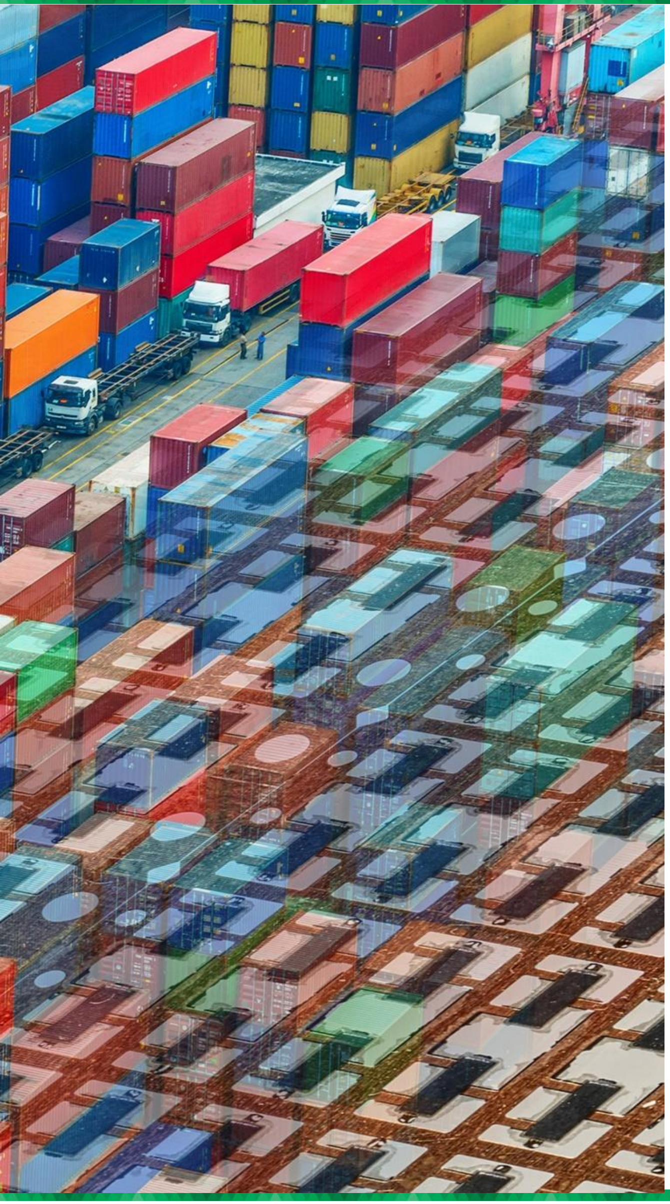
Q4-22	Q1-23
€ 34.3	0% - -5%

Total Operating Expenses

Q4-22	Q1-23
€ 37.1	+15 - 20%

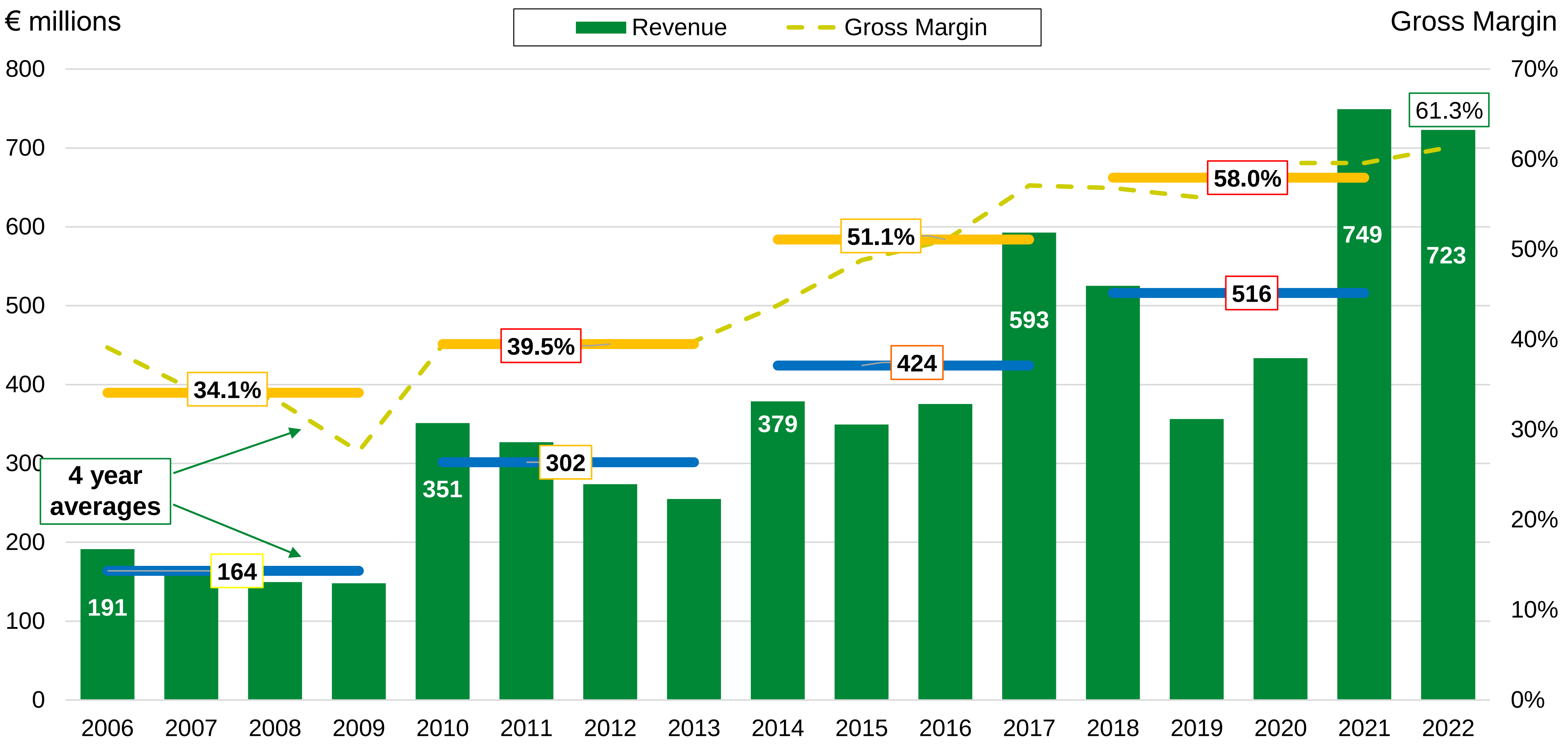
Financial Calendar

1-Mar-23	The Chiplet Symposium, Milan
3-Mar-23	Susquehanna 12th Annual Technology Conference (virtual)
7-Mar-23	UBS Technology Conference 2023, London
26-Apr-23	Besi's 2023 first quarter results
26-Apr-23	Besi's Annual General Meeting of Shareholders
3-May-23	Goldman Sachs Small and Mid Cap Symposium, London
24-May-23	ABN AMRO Benelux conference, Amsterdam
22-Jun-23	ABN AMRO/ODDO BHF conference, London

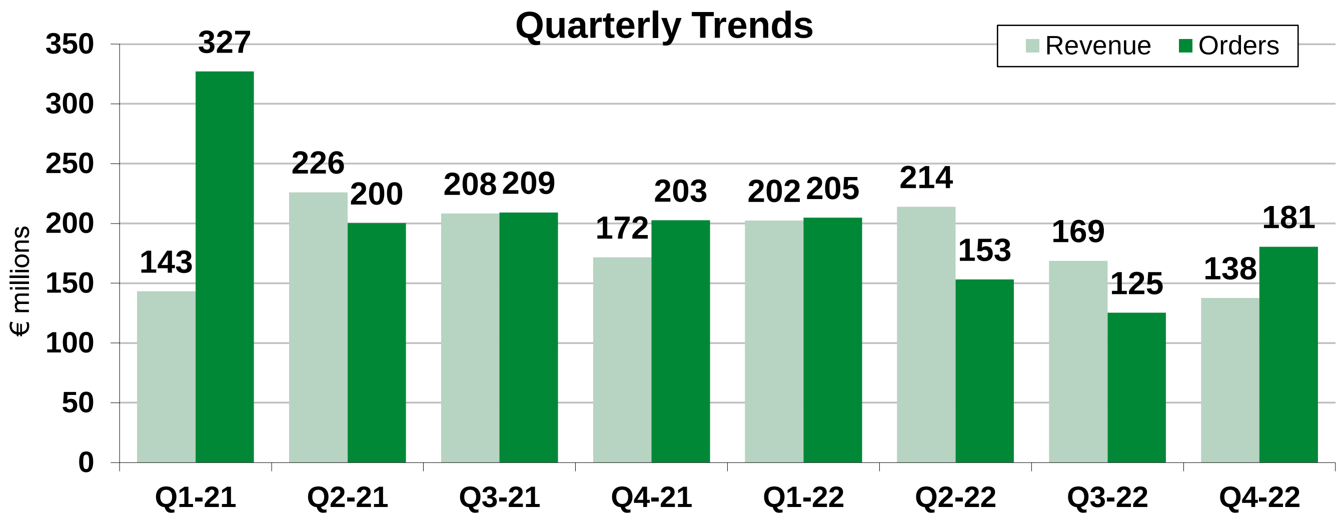


IV. FINANCIAL APPENDIX

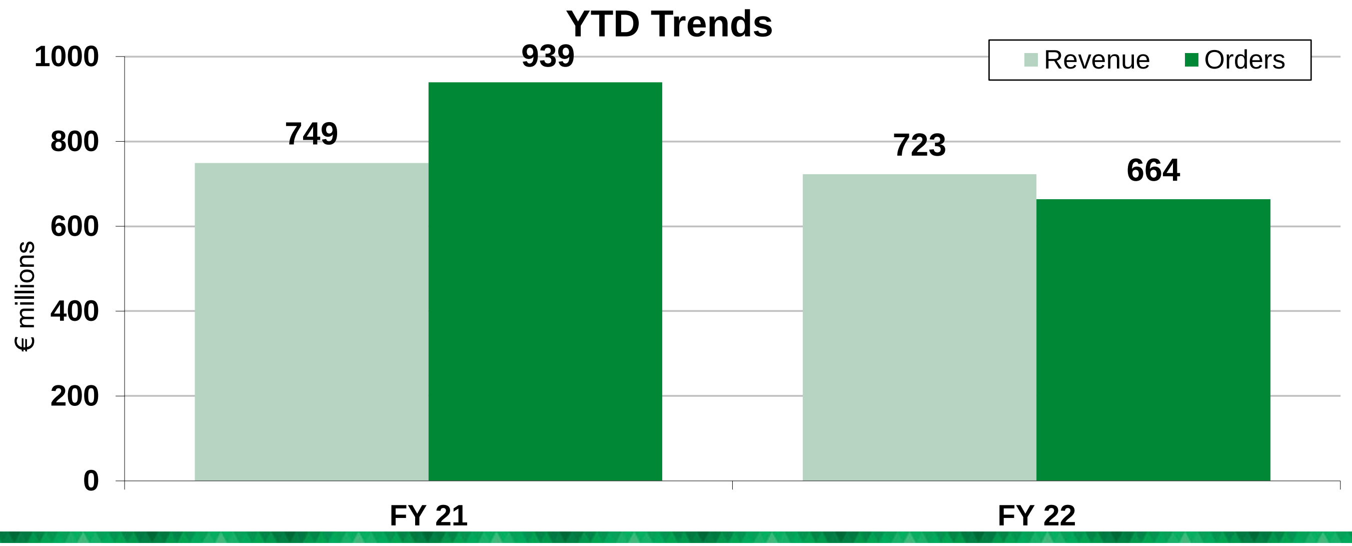
Through Cycle Revenue and Gross Margin Trends



Revenue/Order Trends



Book/Bill	2.3x	0.9x	1.0x	1.2x	1.0x	0.7x	0.7x	1.3x



<u>Q4-22 vs. Q3-22</u>

- **Revenue: -€ 31.1 million (-18.4%)**
  - -Lower computing and mainstream electronics
  - -Ongoing weakness in mobile
  - +Partial offset automotive
- **Orders: € 180.5 million (+44.1%)**
  - +Increased high end smartphones for Q2-23
  - +New hybrid bonding systems

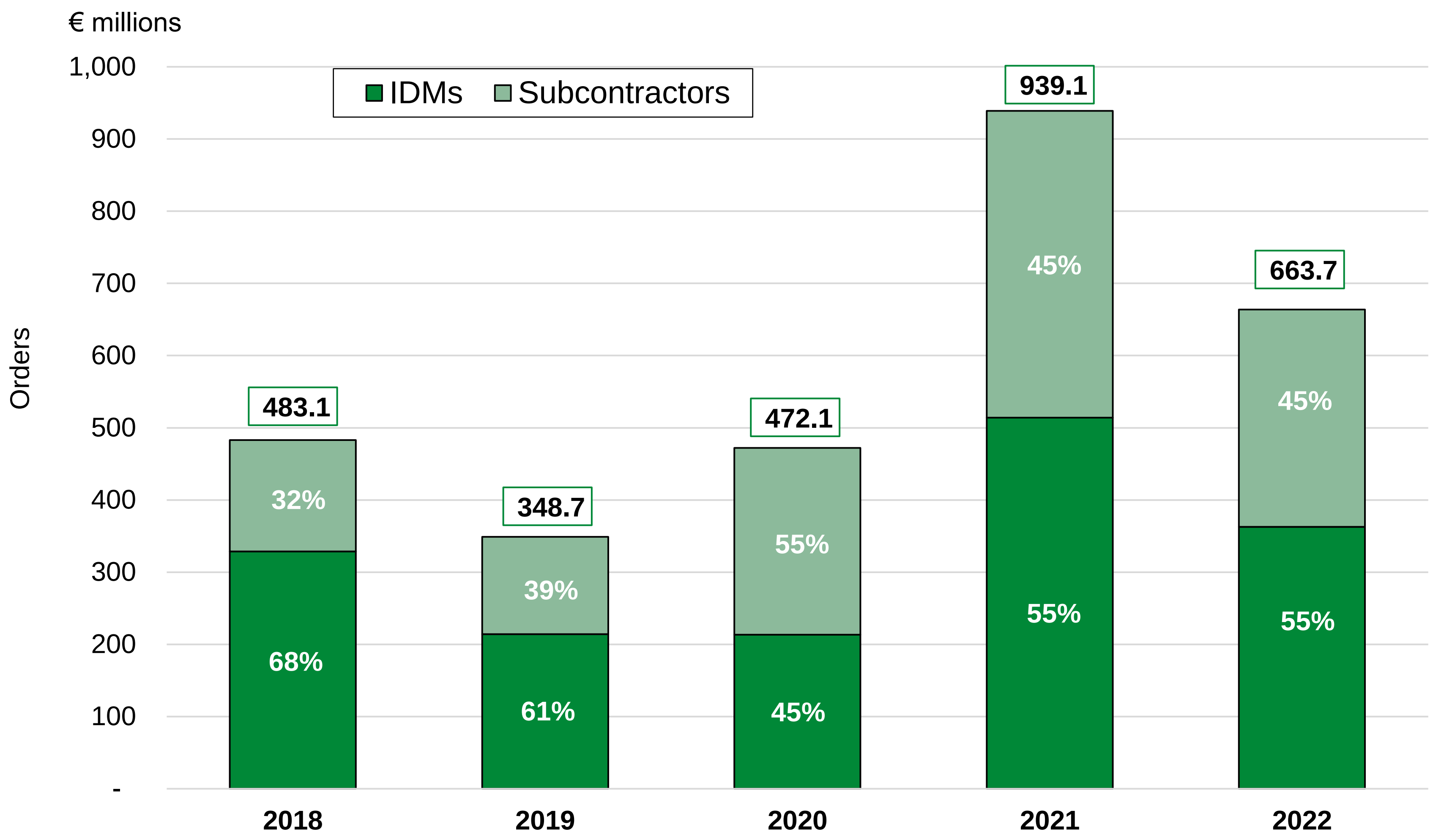
<u>Q4-22 vs. Q4-21</u>

- **Revenue: -€ 34.0 million (-19.8%)**
- **Orders: -€ 22.1 million (-10.9%)**

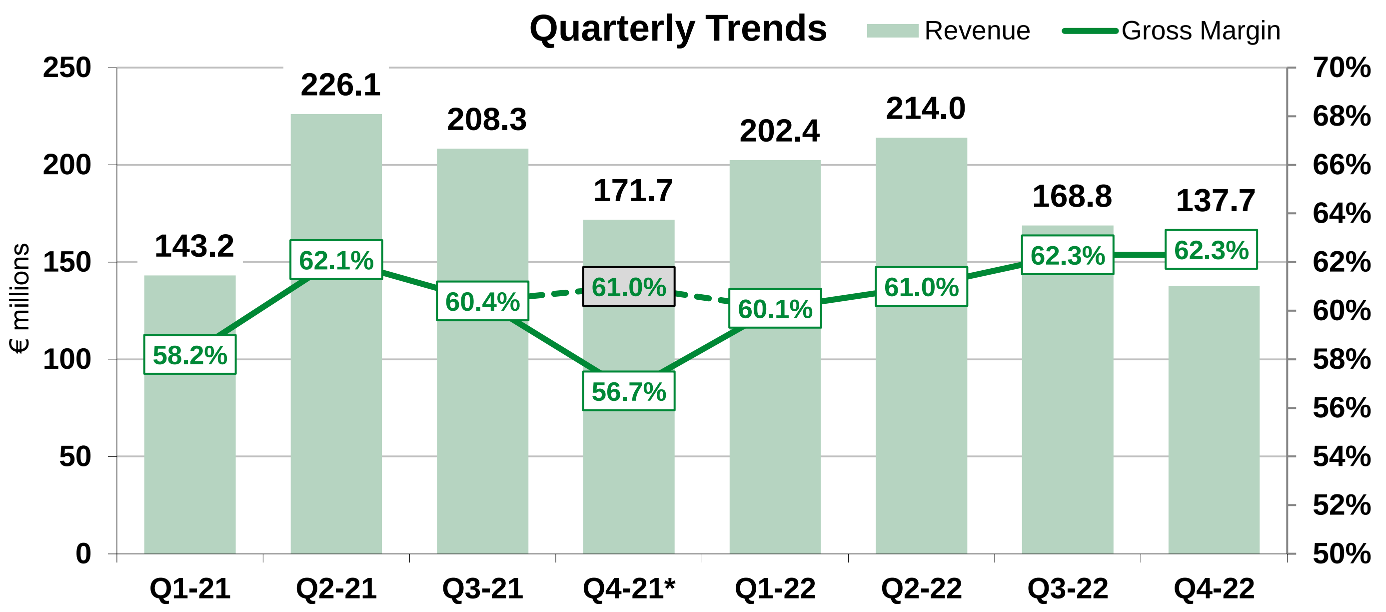
<u>FY-22 vs. FY-21</u>

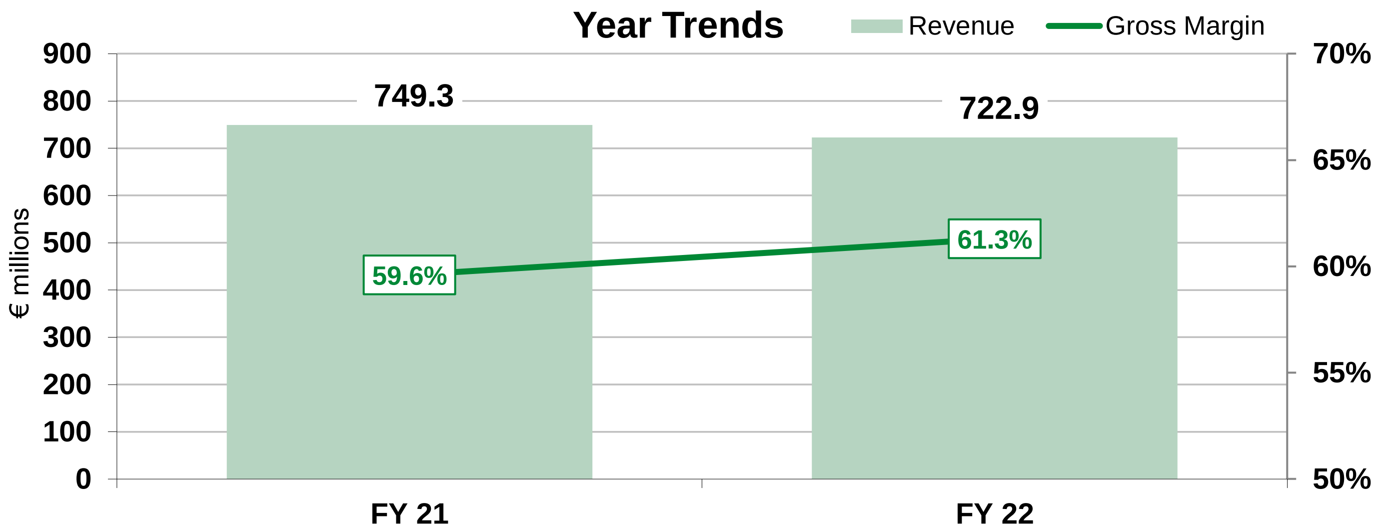
- **Revenue: -€ 26.4 million (-3.5%)**
  - -Weaker demand smartphones and Chinese markets following strong capacity growth past two years
  - +Partial offset: automotive and computing/hybrid bonding
  - **Orders: -€ 275.4 million (-29.3%)**

IDM/Subcontractor Order Trends



Gross Margin Trends





Q4-22 vs. Q3-22
- **62.3% vs. 62.3%**
- Above prior guidance
- Headcount alignment with market trends
  - Net forex positive: Revenue -USD vs. EUR
    Costs -MYR/CNY vs. EUR

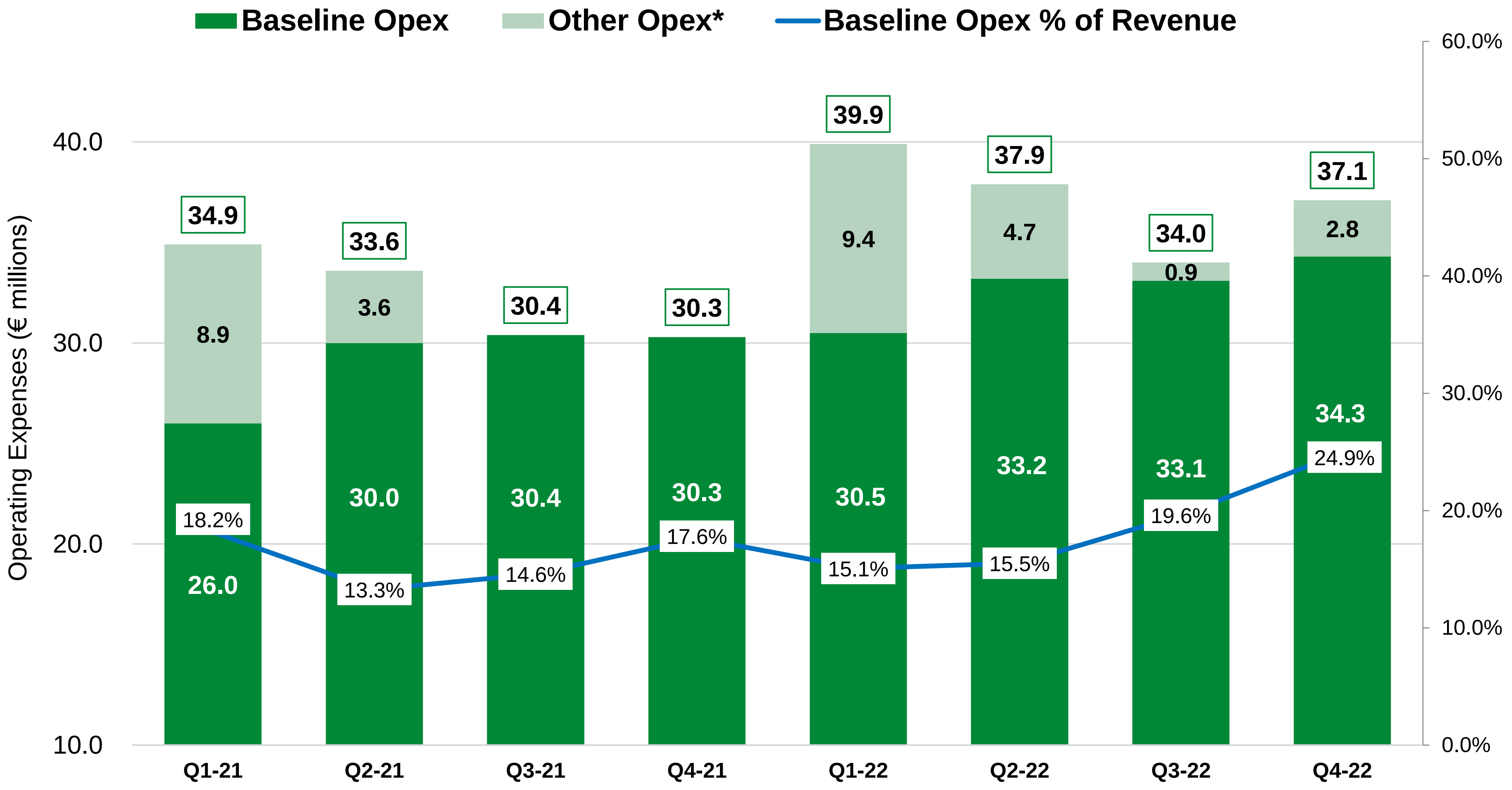
Q4-22 vs. Q4-21
- **62.3 vs. 56.7%* (+5.6 points)**
  - Absence of Q4-21 inventory impairment charge
  - Net forex positive: Revenue +USD vs. EUR
    Costs +CNY/MYR/CHF vs. EUR

FY-22 vs. FY-21
- **61.3% vs. 59.6%**

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

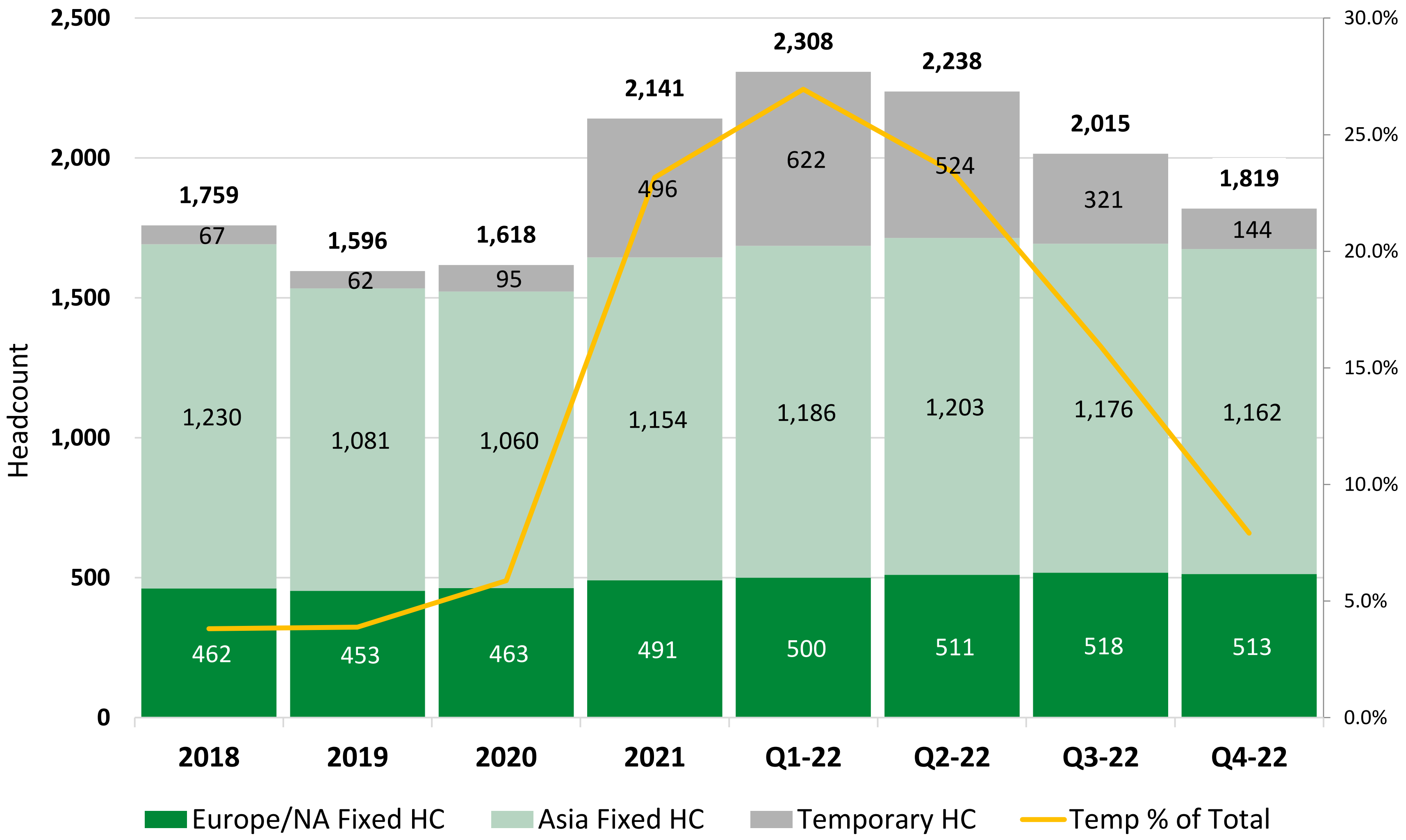
* Favorable impact
Unfavorable impact

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.

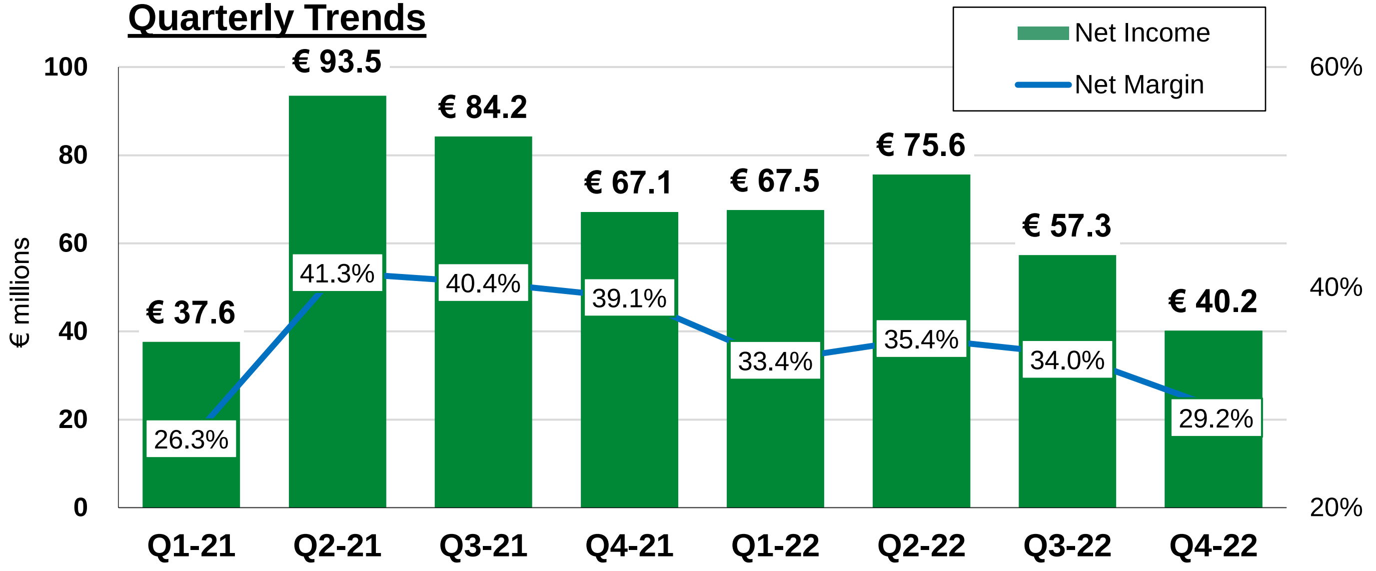
Headcount Trends



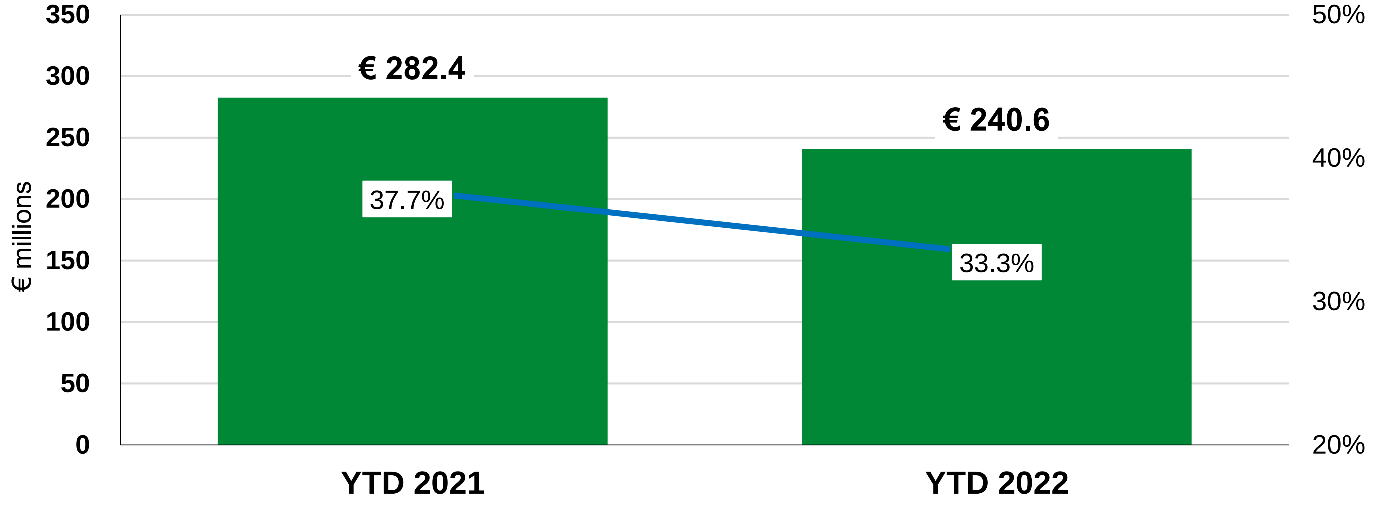
- Reduced temporary HC by 55% in Q4-22 to better align with market conditions
- Increasing European fixed HC to support wafer level assembly expansion

Net Income Trends

Quarterly Trends



YTD Trends



Q4-22 vs. Q3-22

- **€ 40.2 million (-€ 17.1 million)**
  - -18.4% revenue
  - +9.1% operating expenses
  - Offset: higher interest income. Lower effective tax rate

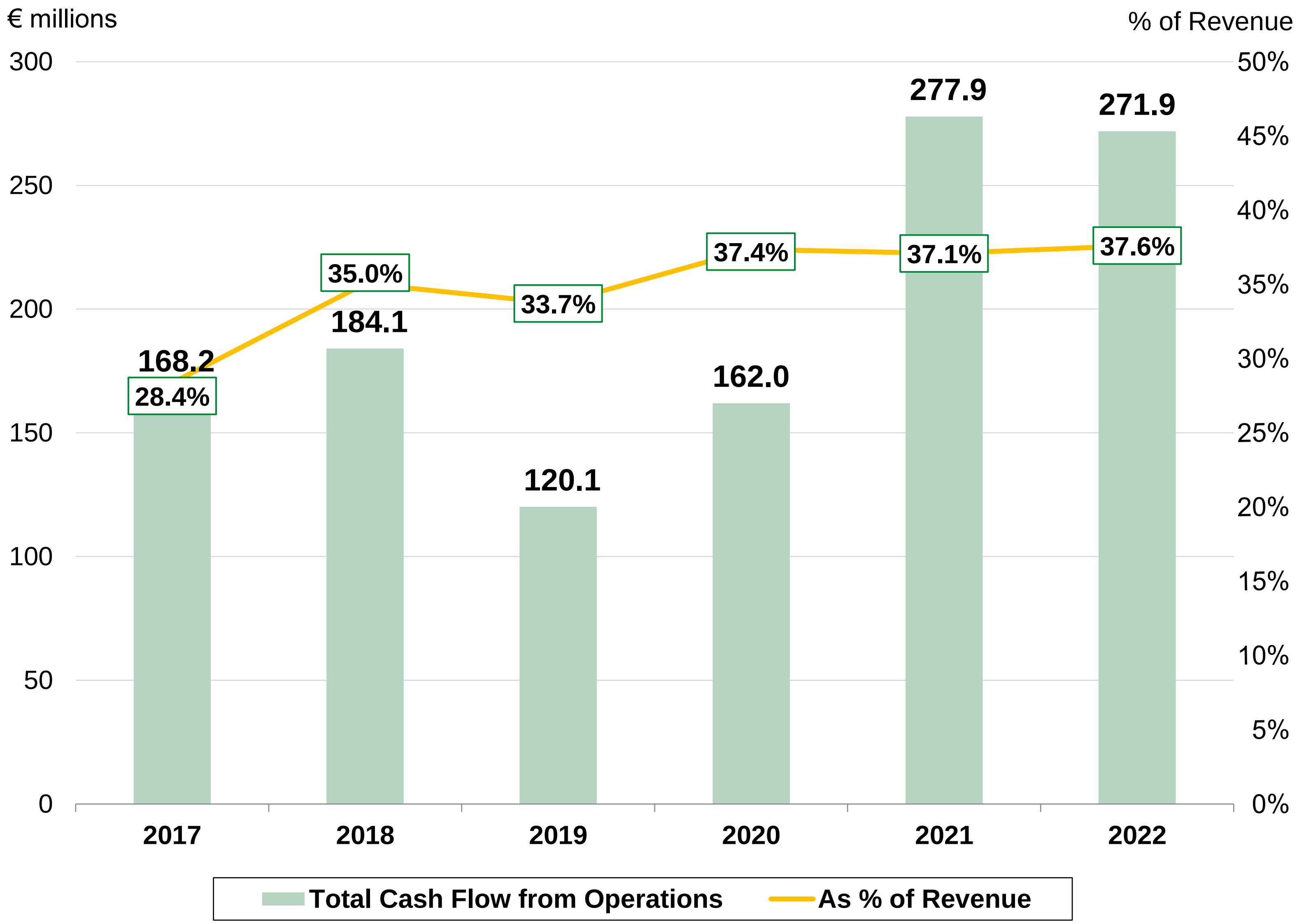
Q4-22 vs. Q4-21

- **-€ 26.9 million**
  - -19.8% lower revenue
  - 46.5% higher R&D spending
  - Higher effective tax rate vs. Q4-21 (€ 8.9 million deferred tax benefits)
  - Offset: 5.6 point gross margin increase

FY-22 vs. FY-21

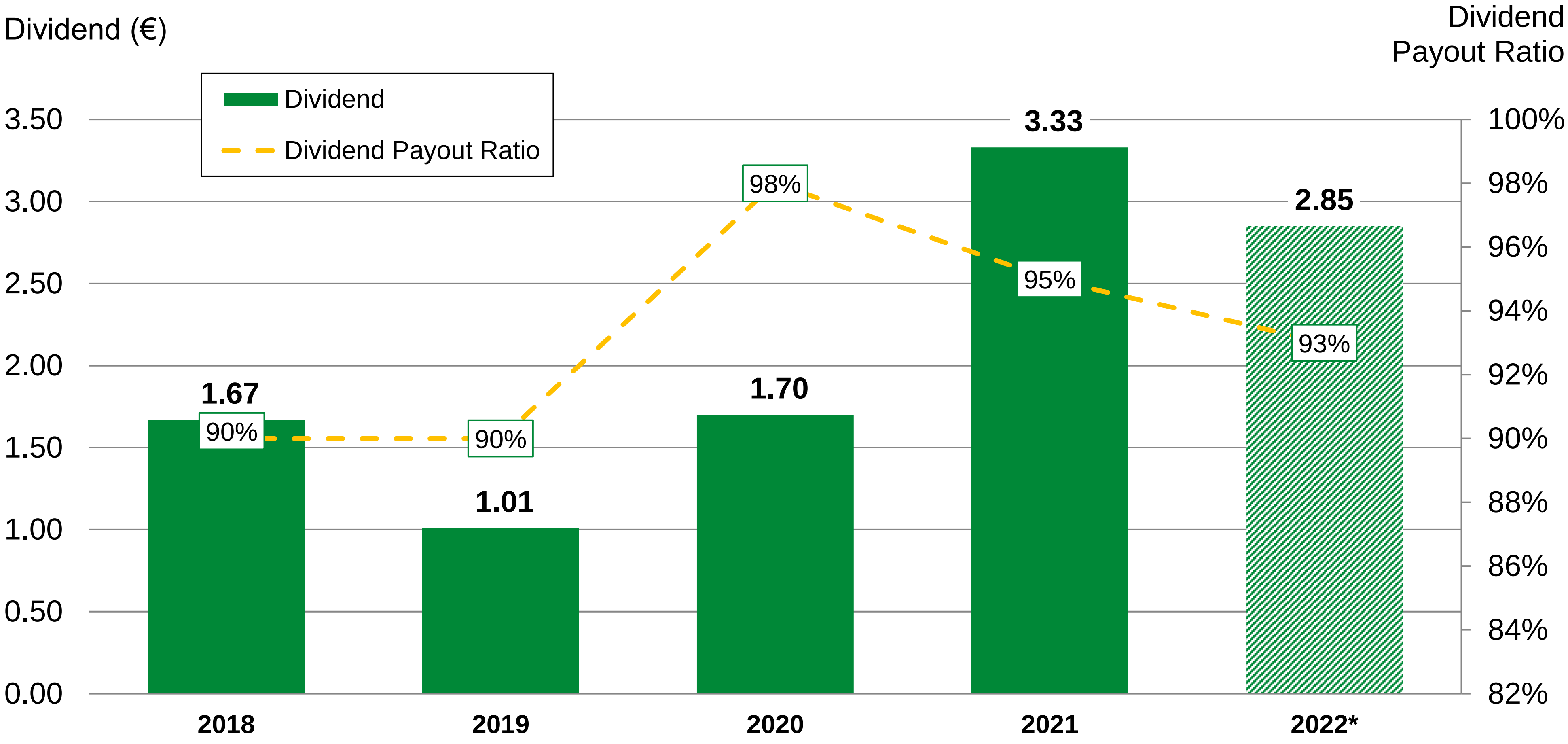
- **€ 240.6 million (-€41.8 million)**
  - -3.5% revenue decline
  - +€ 20 million Opex of which R&D up € 17.5 million
  - Absence of € 15 million deferred tax benefits recognized in 2021
  - Net margin 33.3% vs. 37.7%

Cash Flow Efficiency Trends



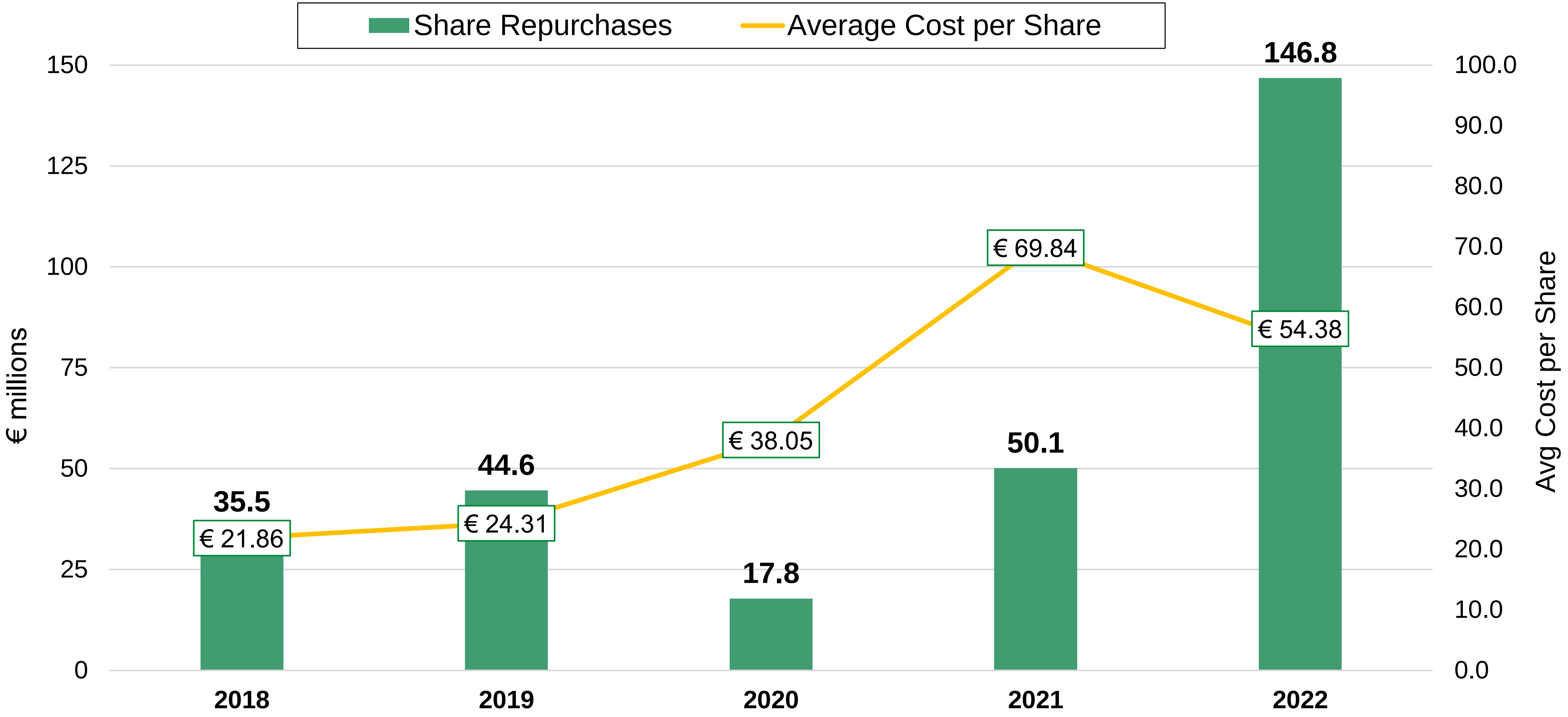
Dividend Trends

Cumulative dividends of € 1.2 billion since 2011, or € 15.63 per share*



* Includes proposed dividend for approval at 2023 AGM

Share Repurchase Activity



- Approximately 2.7 million treasury shares at December 31, 2022, representing 3.3% of shares outstanding
- 78.5 million shares outstanding at December 31, 2022, net of treasury
- Additional ~670k shares purchased in Q1-23 through February 21, 2023

Investment Considerations

- 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