

MARCH 13, 2024

# Avio FY 2023 Results



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# Agenda

**1.**

## **Highlights**

**Giulio Ranzo, Chief Executive Officer**

**2.**

## FY 2023 Financials

Alessandro Agosti, Chief Financial Officer & Head of Investor Relations

**3.**

## Outlook and opportunities

Giulio Ranzo, Chief Executive Officer

**4.**

## Appendix

# 2023 in line with Guidance, record-breaking intakes and backlog

- **FY 2023 results in line with guidance**
- **Net Order Backlog exceeding expectations, record-high in Company history**
- **Vega C return-to-flight program on track:**
  - ✓ **new nozzle design approved**
  - ✓ **Z40 static firing test confirmed for May / June**
  - ✓ **Vega C return-to-flight by Q4 2024**
- **Ariane 6 maiden flight expected by June / July 2024 (according to ESA, Ariane Group, CNES communication)**
- **New technological development programs on track towards 2026 goals**
- **Substantial growth of defence propulsion production volumes**
- **Net income improved, exceeding expectation: proposal of dividend and new share buy-back program**

# Summary of 2023 results

Figures in €m

	<b>2022 Actual</b>	<b>2023 Actual</b>		<b>2023 Guidance</b>	<b>2023 Consensus</b>
<b>Backlog</b>	<b>1.014</b>	<b>1.359</b>	●	<b>1.150 - 1.250</b>	<b>1.215</b>
<b>Revenues</b>	<b>357,3</b>	<b>338,7</b>	●	<b>330 - 350</b>	<b>338,0</b>
<b>EBITDA Reported</b>	<b>21,4</b>	<b>20,5</b>	●	<b>19 - 25</b>	<b>20,7</b>
<b>EBITDA Adjusted</b>	<b>27,8</b>	<b>28,0</b>	●	<b>25 - 31 *</b>	<b>27,3</b>
<b>Net Income</b>	<b>1,3</b>	<b>6,6</b>	●	<b>2 - 6</b>	<b>4,0</b>
<b>Net Financial Position</b>	<b>74,4</b>	<b>76,1</b>	●	<b>45 - 66 **</b>	<b>65,4</b>

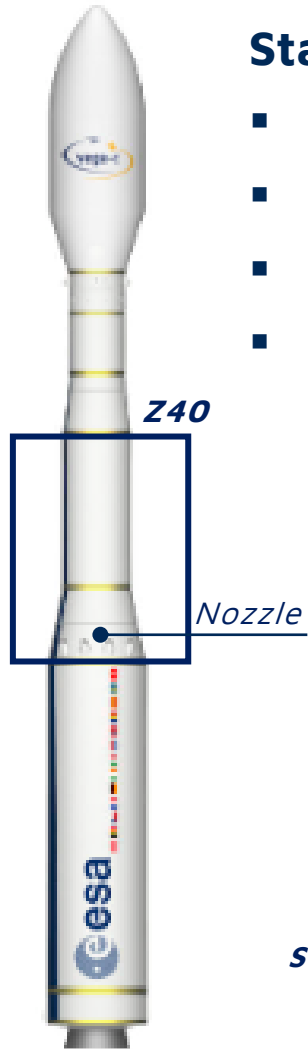
\*Projected on the EBITDA Reported Guidance plus the indication of €5 M of Non-recurring costs given in September 2022

\*\*Min & Max values of consensus

# VEGA-C Return-to-flight on track for Q4 2024

## Status update and next steps

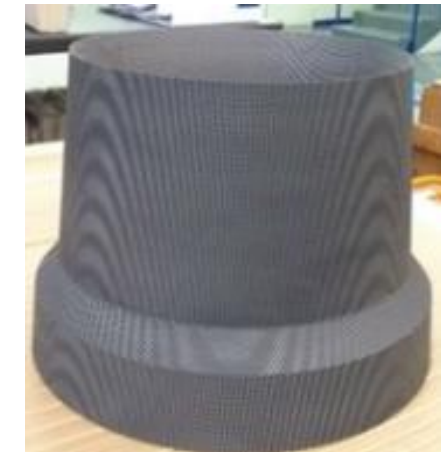
- January 2024: Z40 Nozzle Critical Design Review and Technological Validation key point
- February 2024: Z40 Solid Rocket Motor Performance Key Point
- **Q2 / Q3 2024: QM3 and QM4 Firing Tests**
- **Return-to-flight expected for Q4 2024**



*Sardinia Test Facility refurbished after Z40 QM2 failure*



*Nozzle Lower cone*



*Carbon-Carbon nozzle throat insert (AGS)*



*Nozzle Upper cone*

# Ariane 6 maiden flight expected for June / July 2024

- On November, 23 2023 Ariane 6 **successfully completed the long-duration hot-fire** of the entire flight phase of the core stage
- The main stage and the upper stage of the launcher are in the Launcher Assembly Building (BAL) at the ELA4 launch complex in French Guiana
- ESA, CNES and ArianeGroup **targeting the first launch of Ariane 6 between 15 June and 31 July 2024**



*Vulcan 2.1 hot firing test on launch pad in French Guiana*



*The first Ariane 6 maiden flight launcher arriving in French Guiana*



*Ariane 6 stages currently in the Launcher Assembly Building in Guiana*

# P160C booster upgrade for Ariane 6 and Vega C well on track

## PROGRESS STATUS

PRELIMINARY DESIGN REVIEW

CRITICAL DESIGN REVIEW

IMC SHIPMENT

LMC CASTING

LMC DELIVERY

QUALIFICATION TEST ON QM3

GROUND QUALIFICATION REVIEW

FULL OPERATIONAL CAPABILITY DEMONSTRATION

**Customer:** European Space Agency

**Objective:** P160C Solid Rocket Motor ("SRM") is the evolution of Qualified P120C SRM. P160C will be devoted to Ariane 6 Block 2 and VEGA-E Launch Vehicles (LV)

### Status update:

SRM Critical Design Review: completed in March 2024

Qualification Model #3 (QM3): Insulated Motor Case (IMC) Manufacturing ongoing (Inspections before IMC Acceptance Tests), IMC shipment scheduled in June 2024



*IMC, Thermal Protection after machining*



*IMC, Composite case during winding (initial phase)*



*IMC, Composite Case winding*



*IMC, Composite case after thermal curing*



# VEGA-E Program progressing well on both flight and ground segments

## PROGRESS STATUS

PRELIMINARY DESIGN REVIEW

SUB-SYSTEMS PRELIMINARY DESIGN REVIEW

CRITICAL DESIGN REVIEW

GROUND QUALIFICATION REVIEW

QUALIFICATION FLIGHT

FLIGHT QUALIFICATION REVIEW

**Customer:** European Space Agency

**Objective:** VEGA-E Launcher aims to increase the Payload launch capability by 25% with respect to VEGA-C, leveraging the "M10" Liquid Oxygen and Liquid Methane engine for the upper stage

## Status update:

Wind Tunnel tests completed in 2023 (as part of the Launch Vehicle Design Review process)

M10 Engine Firing Tests successfully performed in AVIO SPTF in Sardinia

ZL3 launch complex assigned to Vega E



*Wind Tunnel tests completed in 2023 (as part of the Launch Vehicle Design Review process)*



*DM1 (2022) and DM2 (2023) M10 Engine Firing Tests*



*"ZL3" launch complex*

# Space Rider: the innovative spaceplane now in the ground testing phase

## PROGRESS STATUS

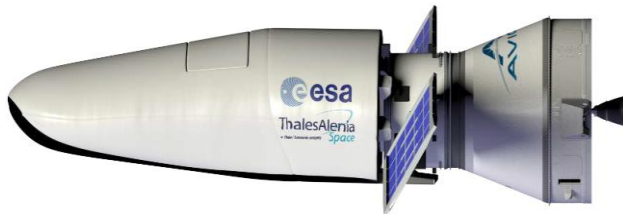


**Customer:** European Space Agency

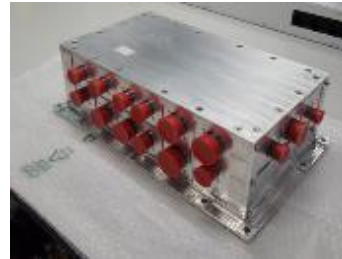
**Objective:** Development of a reusable orbital and re-entry system aimed to manage multiple commercial and institutional applications (e.g. microgravity, IOV/IOD, Earth and Space Observation applications, etc.)

### Status update:

HWIL campaign started in December 2023 First test tranche successfully completed



### Availability of Avionic items for HWIL Test campaign



*PSIU EM (Temis)*



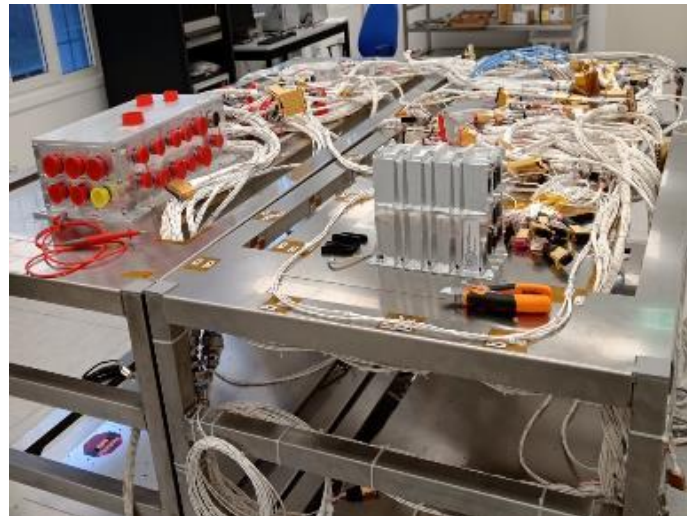
*Magneto Meter EM (Lusospace)*



*PCDU EM (LDO)*



*ALEK cylinder (BG) manufacturing completed*



*HWIL Test Setup (AVUM+ALEK)*



*HWIL campaign step1 successfully completed*

# Technological Development Projects to prepare next-gen launchers progressing as expected

## Space Transportation Systems

## High Thrust Engine

## Multi-Purpose Green Engine

## In-Orbit Servicing module

**Customer:** European Space Agency

**Customer:** European Space Agency

**Customer:** Italian Space Agency

**Customer:** Italian Space Agency

**Objective:** Accelerating the development and know-how by acquiring experience directly from in-flight tests. Design, manufacturing and launch of two small Flight Demonstrators

**Objective:** achieving a full scale hot firing demonstration of a complete 60ton thrust class LOX-Methane engine by 2026

**Objective:** Creating a highly versatile "Green" engine for orbital propulsion and in-orbit services and logistics

**Objective:** Develop enabling technologies to fulfill in-orbit-servicing mission objectives (satellite relocation, life extension, refueling, deorbiting,..) in partnership with Thales Alenia Space

**Start of HWIL activities in apr-24**

**Pre-burner subscale firing test by the end of March 2024**

**Manufacturing and integration of the first two engine models for the Quick and Dirty test campaign by June 2024**

**Concept design architecture established**

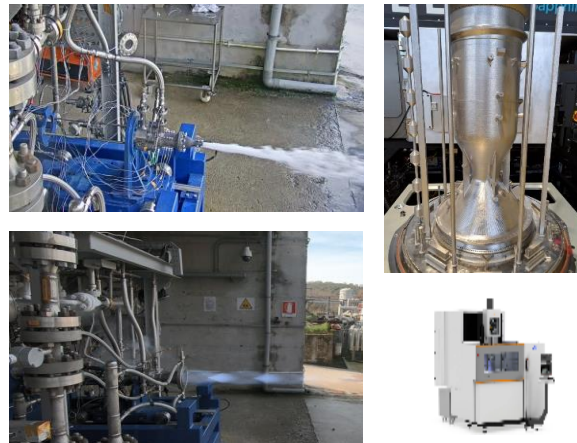
**Assembly line for M10 & M60 engines achieved Critical design review. Operative by end of 2024**

**System Requirement Review passed**

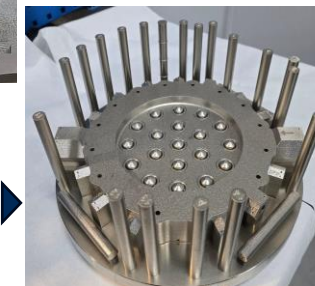
**Route to Preliminary Design Review established**



**M10 for IFD1 Flight: manufacturing on going, TCA and Nozzle Printed in house**



← **Thrust chamber**

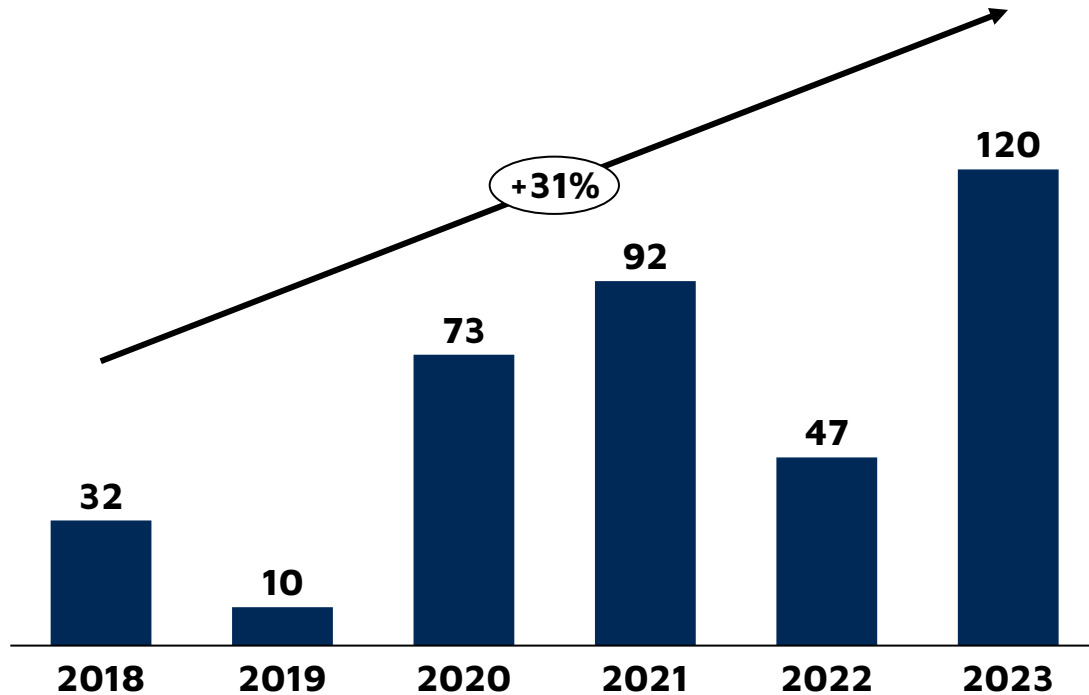


**Injector section** →



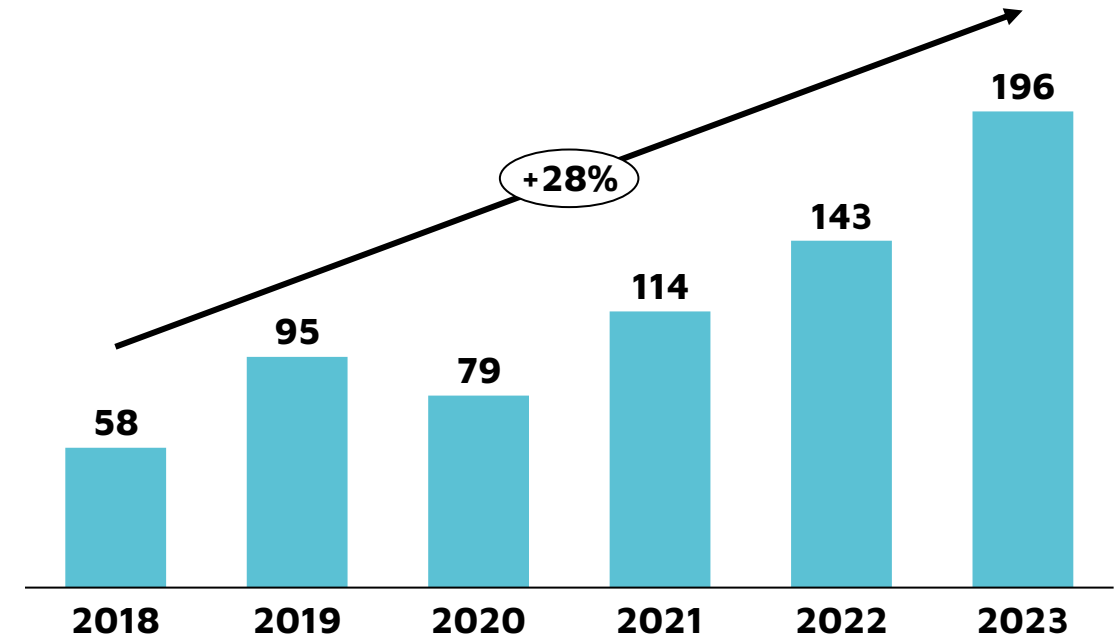
# Defence propulsion: consolidating growth in both backlog and production volumes – now becoming an important profit

## Defence propulsion orders (€m)



- **2023 record year for defence propulsion orders**
- Current backlog for defence propulsion beyond

## Defence propulsion production (volumes eq.)



- Steep increase in Aster production, not yet including expected ramp-up implicit in current backlog

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Outlook and opportunities

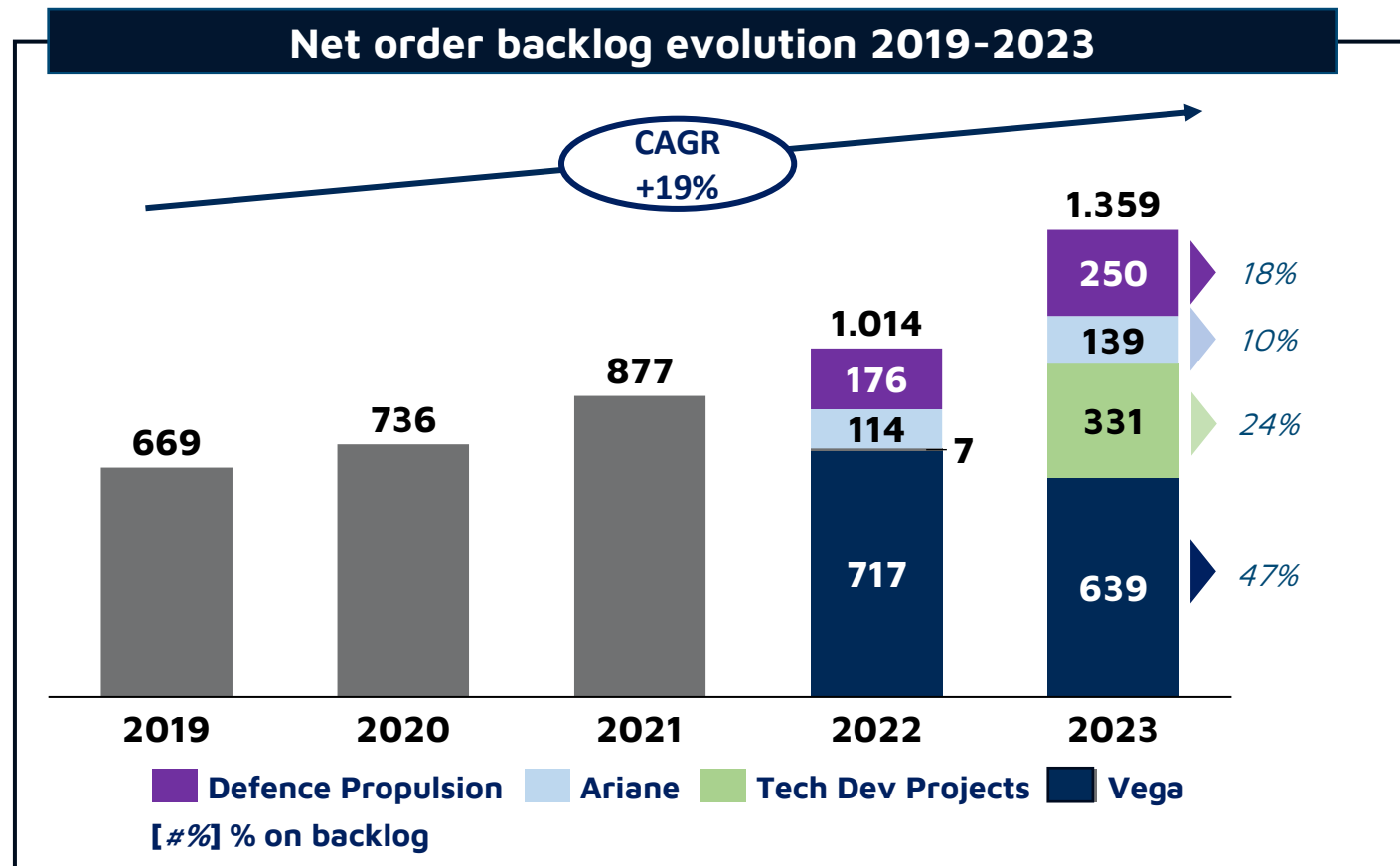
Giulio Ranzo, Chief Executive Officer

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Appendix

# 2023 record in terms of orders intakes and backlog

Figures in €m



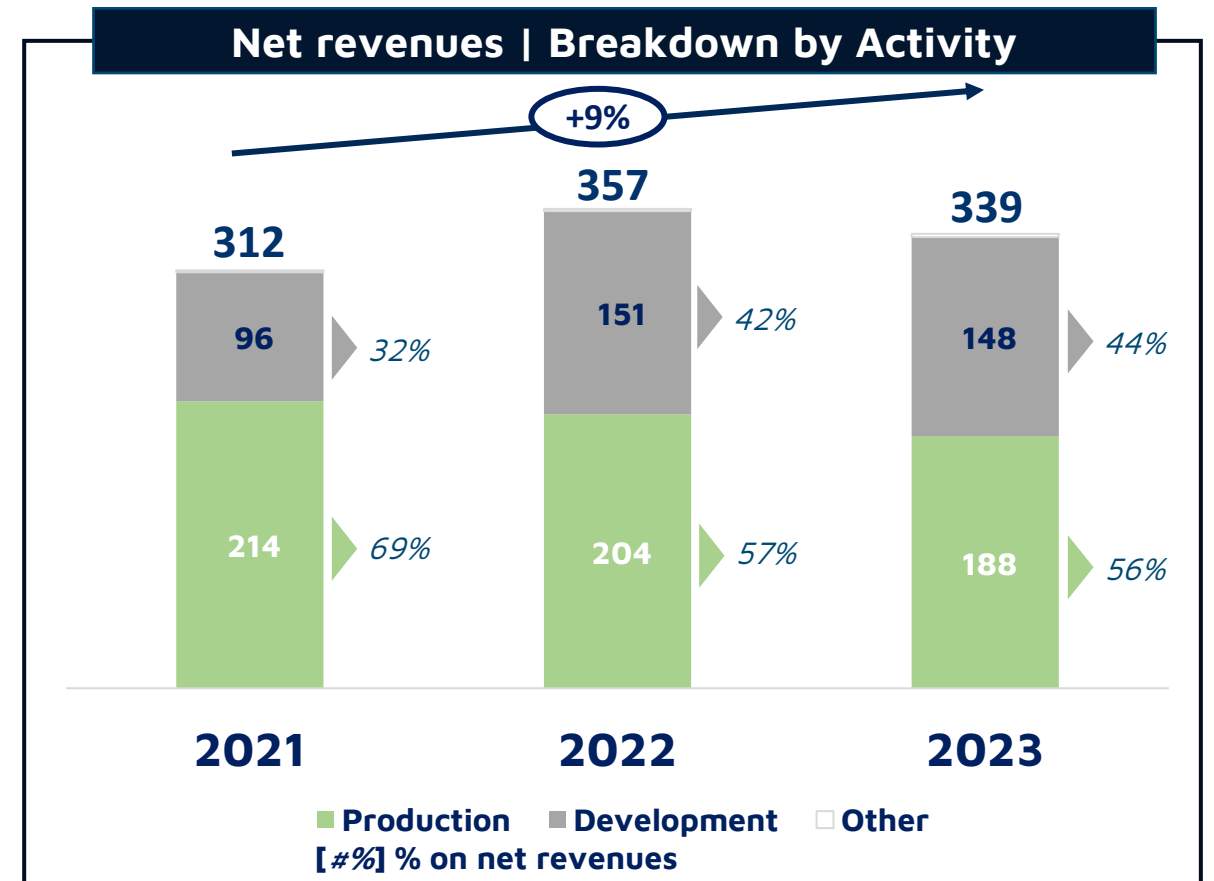
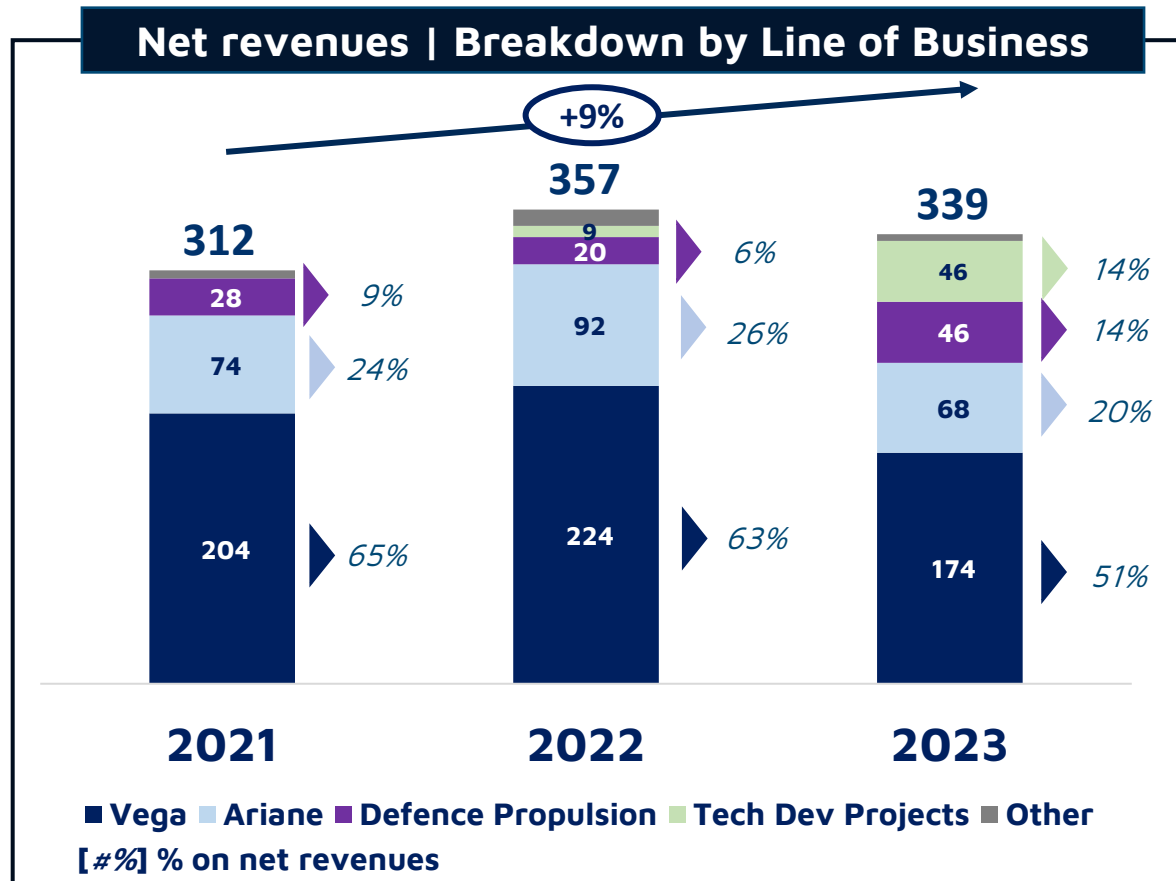
## Main comments

- **Record-breaking backlog scoring €1.4bn** (+34% vs. 2022)
- New contracts signed in 2023 for **~€0.7bn** (~+40% vs. 2022) mainly referred to:
  - **Technology Development projects for ~€370m** (e.g. in-flight demonstrator, High Trust Engine, Multi-Purpose Green Engine)
  - **Defence propulsion** production (i.e. ASTER, CAMM-ER) **for €120m**
  - **P120C** development and production activities **for ~€100m**
  - **Vega C / Space Rider** production and development activities **~€100m**
- Growth in order backlog associated with growth in cash advances

**Vega** and **Defence propulsion** accounts for 50% and 20% of 2023 year-end backlog. 60% of backlog is for production and 40% for development activities

# Net revenues evolution 2021-2023

Figures in €m



In 2023 production revenues lower than 2022 for P120 and Vega C (due to return to flight activities) partially offset by increase in Technology Development projects and defence propulsion activities

# FY 2023 results vs 2022

## AVIO Group | Main financials

	2022 Actual (€m)	2023 Actual (€m)	2023 vs. 2022 (€m)
<b>NET REVENUES</b>	357	339 <b>1.</b>	(18,6)
<b>EBITDA REPORTED</b>	21,4	20,5	(0,9)
% on net revenues	N/R 6,0%	N/R 6,1%	
<b>EBITDA ADJUSTED</b>	27,8	28,0 <b>2.</b>	0,2
% on net revenues	6,4 7,8%	7,5 <b>3.</b> 8,3%	
<b>EBIT REPORTED</b>	2,2	5,2	3,0
% on net revenues	0,6%	1,5%	
<b>EBIT ADJUSTED</b>	8,6	12,7 <b>4.</b>	4,1
% on net revenues	2,4%	3,8%	
<b>PROFIT BEFORE TAX</b>	1,4	6,6	5,3
% on net revenues	0,4%	2,0%	
<b>NET INCOME</b>	1,3	6,6 <b>5.</b>	5,3
% on net revenues	0,4%	2,0%	

## Main comments

- 1.** Slightly lower revenues (-5%) as a result of lower Vega C (due to return to flight) and P120 production activities partially offset by **boost in technology development projects and defence propulsion**
- 2.** **EBITDA adjusted in line with previous year** for the combined effect of lower energy costs and lower utilization rate of production facilities for slow-down of launchers production activities
- 3.** **Non-recurring** costs mainly related to **Vega C return-to-flight** and exploration of new potential business
- 4.** **Positive** effect on **EBIT** also driven by lower depreciations following the review of economic useful lives of certain production assets in connection with the **phase-out/phase-in** of both **Ariane** (A5>A6) and **Vega** (Vega>Vega C)
- 5.** **Net result at ~€7m** also benefited from positive **financial incomes** (also thanks to cash advances) and **neutral tax** burden



# Cash from new contracts contributes to a structurally negative working capital

Figures in €m

## AVIO Group | Sources and uses

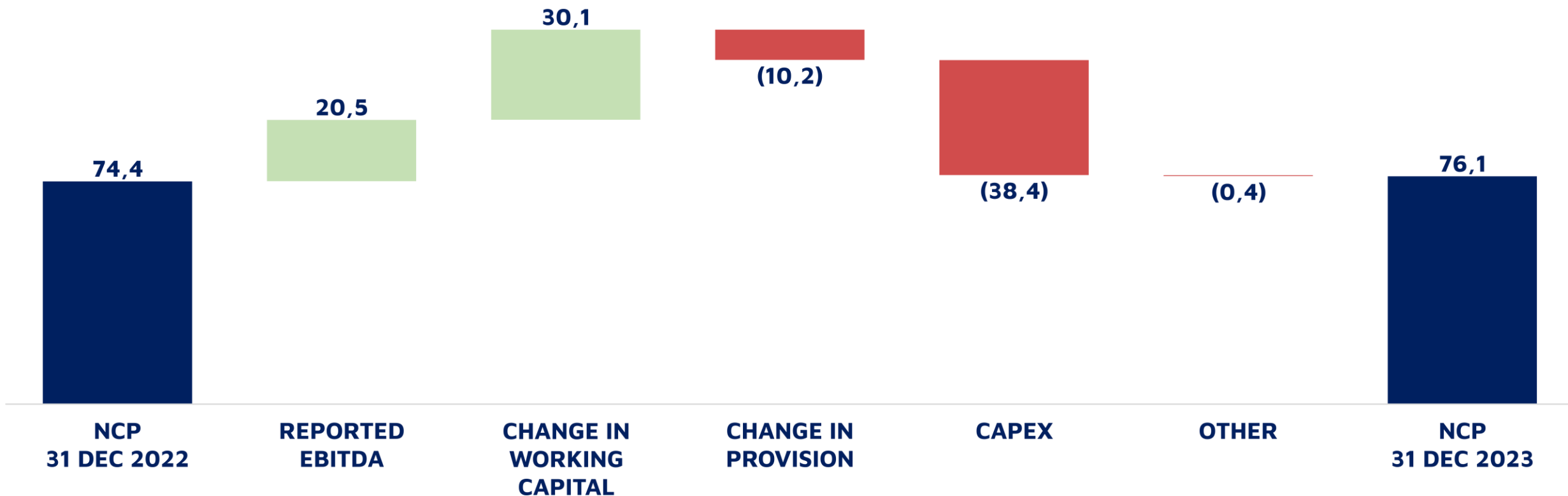
	2022 Actual (€m)	2023 Actual (€m)	
<b>WORKING CAPITAL</b>	<b>(140,9)</b>	<b>(171,0)</b>	<b>1.</b>
<b>DEFERRED TAX ASSETS</b>	<b>81,5</b>	<b>81,2</b>	
<b>PROVISIONS</b>	<b>(62,9)</b>	<b>(52,8)</b>	<b>2.</b>
<b>GOODWILL</b>	<b>91,8</b>	<b>89,2</b>	
<b>FIXED ASSETS</b>	<b>257,4</b>	<b>285,6</b>	<b>3.</b>
<b>FINANCIAL RECEIVABLES</b>	<b>2,0</b>	<b>2,0</b>	
<b>NET INVESTED CAPITAL</b>	<b>228,8</b>	<b>234,2</b>	
<b>NET CASH POSITION</b>	<b>74,4</b>	<b>76,1</b>	<b>4.</b>
<b>EQUITY</b>	<b>(303,3)</b>	<b>(310,4)</b>	<b>5.</b>
<b>TOTAL SOURCES</b>	<b>(228,8)</b>	<b>(234,2)</b>	

## Main comments

1. Working capital structurally negative thanks to cash advances from order intakes
2. Decrease in provisions mainly related to extraordinary costs for Vega C Return to Flight activities (net of ESA compensations) and for the execution of future programs provided for in previous year
3. Mainly for capex for Vega cadence increase, technological innovation projects, A.I. and development of new launchers of Vega family, net of depreciation
4. Net cash position in line with 2022
5. Increase in equity mainly for net income 2023

# 2022 – 2023 Net Cash Position bridge

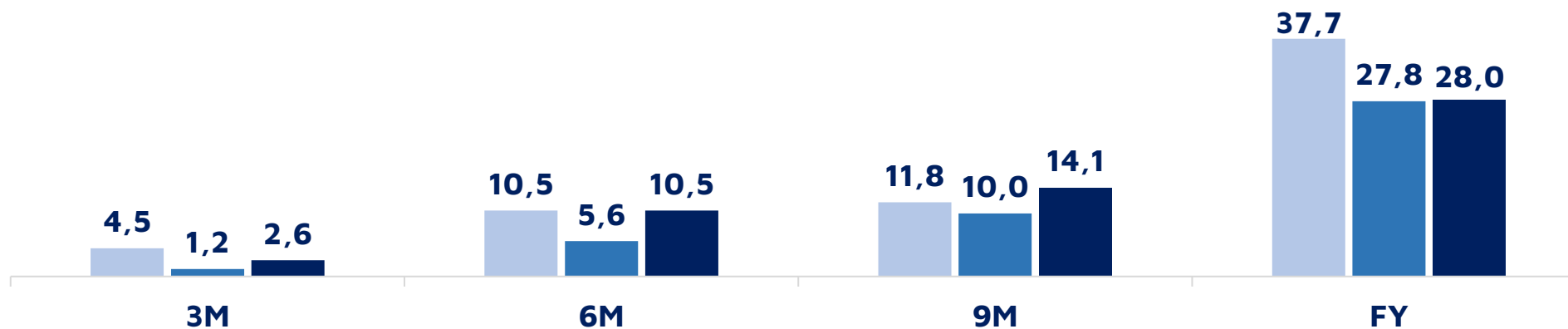
Figures in €m



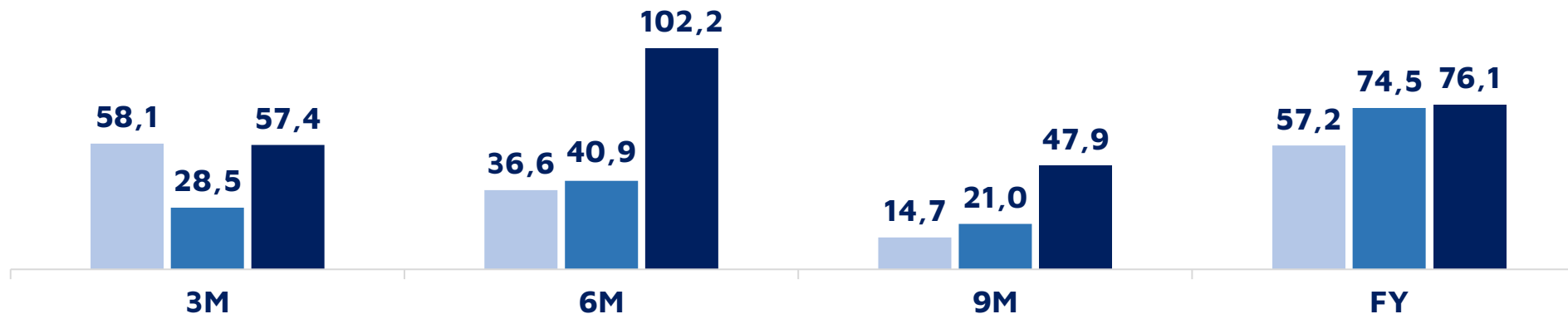
# EBITDA generation heavily concentrated in Q4

Figures in €m

## EBITDA Adjusted | Quarterly evolution



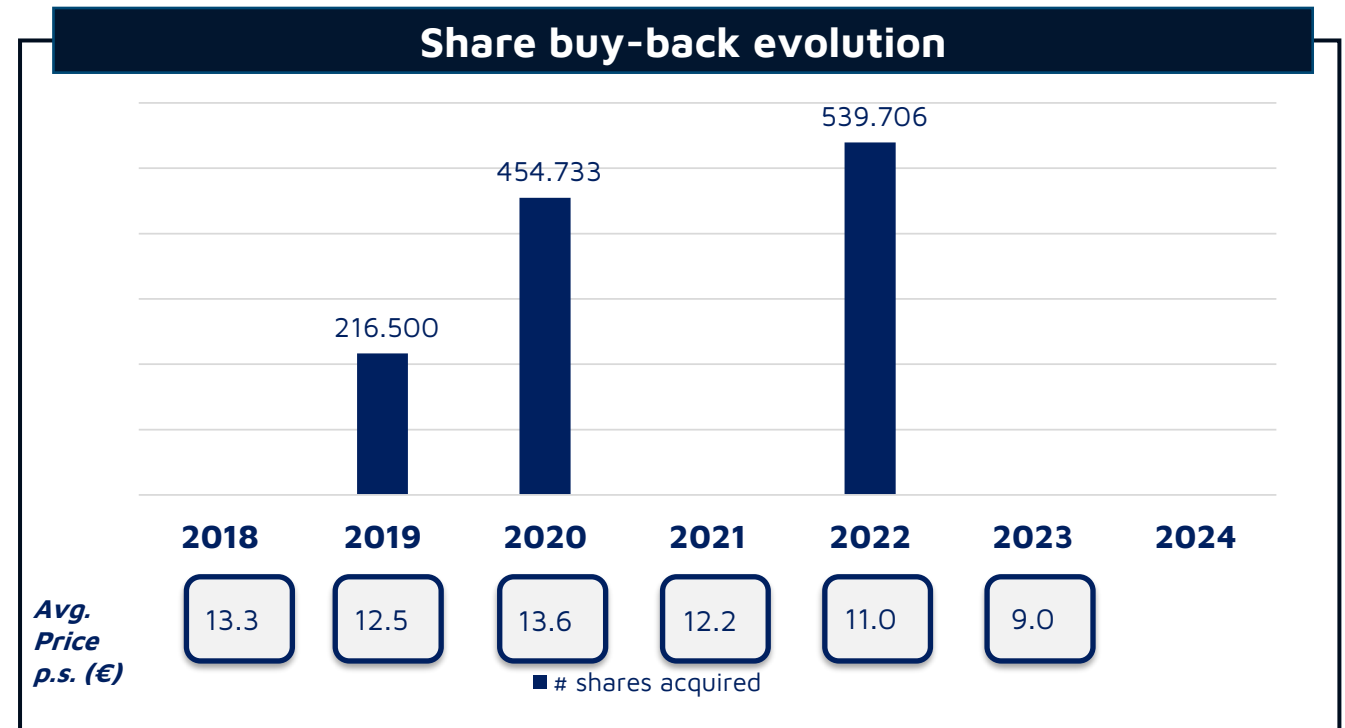
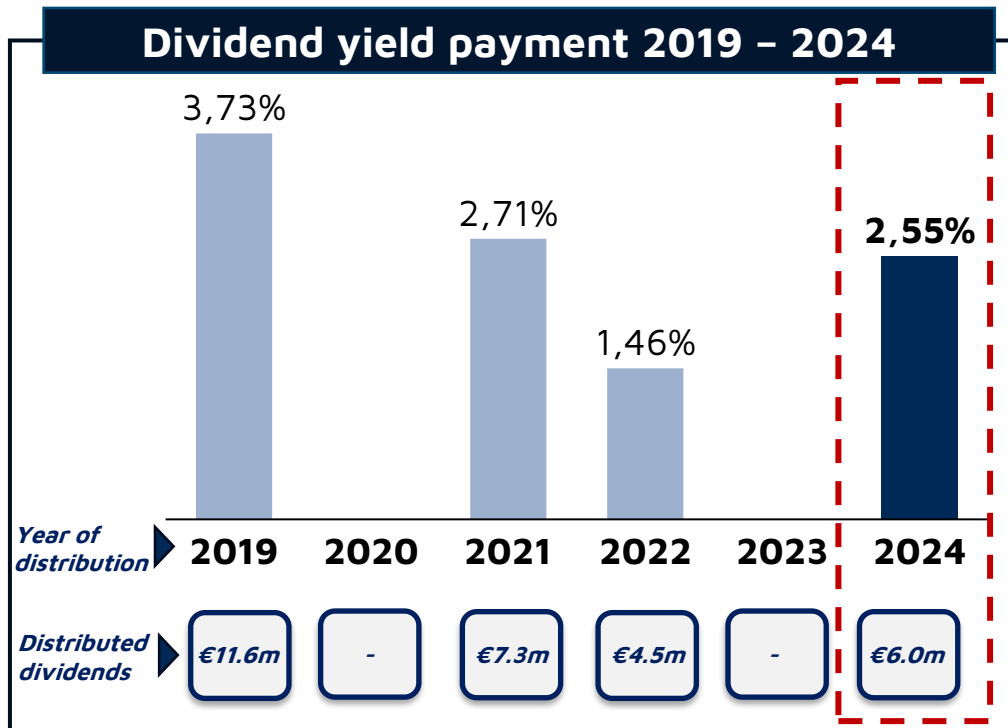
## Net cash position | Quarterly evolution



■ 2021 ■ 2022 ■ 2023

# Proposed dividend distribution in 2024 and shares buy-back

- **Robust 2023 net income drives proposal for return to dividend distribution in 2024**
- **Board of Directors has proposed** to the Annual Shareholder's meeting on 23<sup>rd</sup> April:
  - **dividends distribution for €6.0m<sup>(1)</sup>** with dividend yield of 2.55%
  - **shares buy-back program** for an amount of €4.9m



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## **Outlook and opportunities**

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## Appendix

# 2024 shall mark the transition towards higher launch rates



**2023**

**2024**

**2025 (1)**

**Ariane**



**6**  
**(Ariane 6)**

**VA260**  
April

**VA261**  
July

**A6 MF**

**Vega**



**4**  
**(Vega C)**

**Z40 Firing test**  
June

**VV23**  
October

**Z40 Firing test VV24**  
Q2 2024

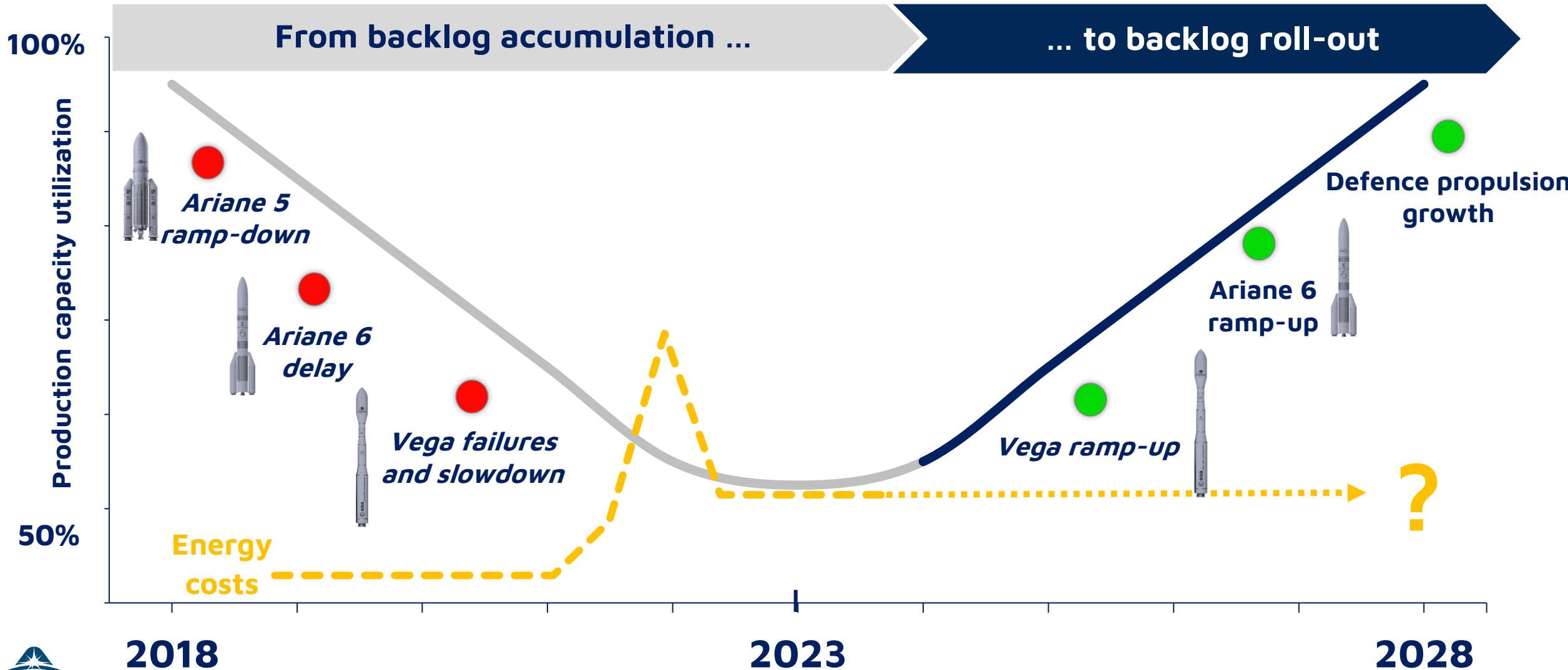
**Z40 firing test**  
Q3 2024

**VC03-RTF**  
Q4 2024

(1) Avio current assumption of contracted flight backlog roll-out



# Where is 2024 along the cycle



# FY2024 Guidance



## BACKLOG

€m	€m
1.500	1.600

- *10%-15% growth vs 2023*
- *New orders from defence propulsion business*
- *Backlog expected to start roll-out*



## REVENUES

€m	€m
370	390

- *10% growth vs 2023*
- *Growth on defence propulsion activities and Technological Development Projects*



## EBITDA REPORTED (1)

€m	€m
21	26

- *10% growth vs 2023*
- *Backlog roll-out to "unlock" production and economies of scale*



## NET INCOME

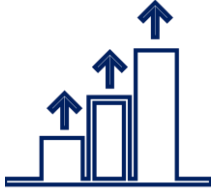
€m	€m
6	10

- *10%-20% growth vs 2023*
- *Marginal effect of financial charges and taxation*

(1) Implying an EBITDA Adjusted ranging from €28m to €33m considering €7m as non recurring costs



# Beyond 2024



- Net Order backlog to remain high and stable in spite of growing annual revenues
- Potential new product lines possible to enable orbital services businesses



- Sustained growth both in space launch and defence propulsion
- Growing volumes in P120/P160 production to sustain Ariane 6 / Vega C ramp-up
- Completion of technology innovation projects to expand future product range



- Margin expansion objectives linked to three main drivers:
  - Progressively higher utilization of installed production capacity
  - Insourcing of «Launch service provider» and «Launch operator» activities
  - Higher contribution from the defence propulsion business



- Upside opportunities in the defence propulsion activities
  - New product developments for existing customers
  - New markets/customers for additional production activities

# Exploring upside potential opportunities in the US defence market

- The defence propulsion business **is experiencing an accelerating growth globally**
- Avio has received an increase in orders for Aster / CAMM-ER and new sub-system developments
- The **US market** is facing a production capacity gap due to the substantial acceleration in demand
- **Avio has started to explore the US market for medium-term opportunities:**
  - ✓ Established 100%-owned subsidiary (Avio USA) with USD 3 million capital to start operations
  - ✓ Hired a US team with deep sector competencies and relevant experience
  - ✓ Started to map opportunities with a view to engage in discussions with prospective customers
- **Avio is continuing on this effort in the course of 2024**

**THANK YOU FOR YOUR ATTENTION**



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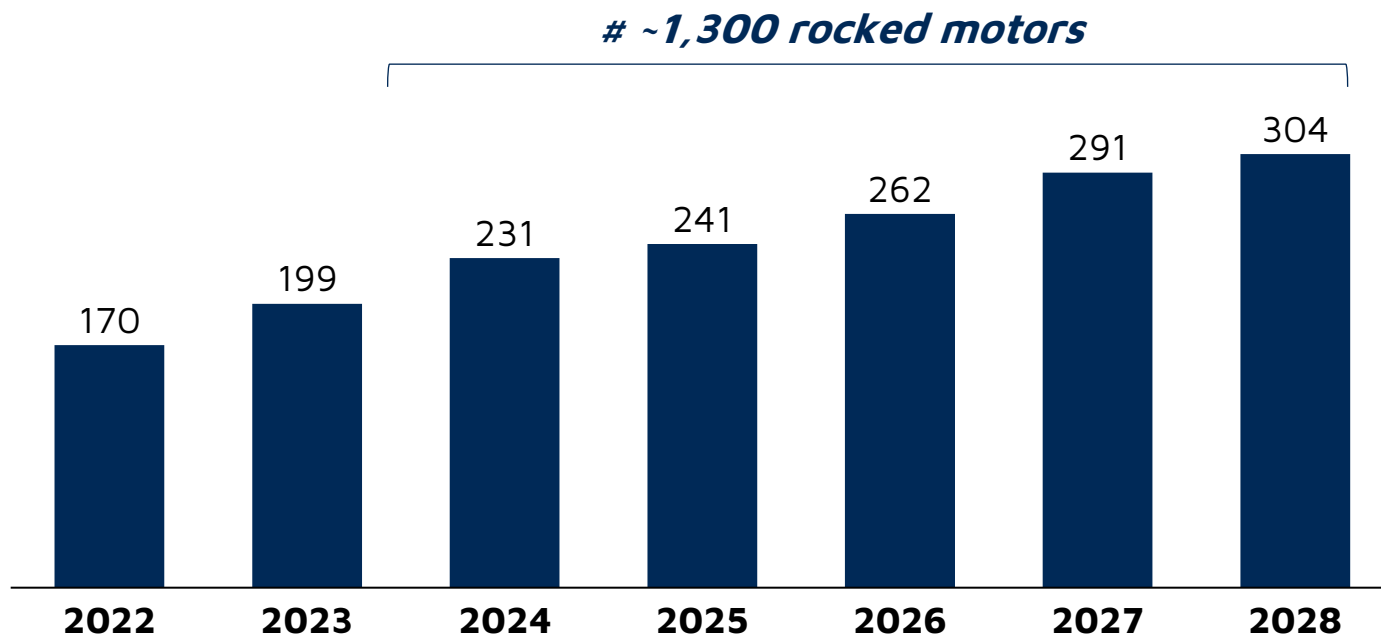
4.

## Appendix

# Expected roll-out of currently contracted defence propulsion volumes

Figures in # of equivalent rocket motors

## Evolution of defence propulsion production levels (existing contracts)



## Main comments

- ~1,300 rocket motors to be produced between 2024 and 2028 on the basis of the existing contracts (mainly ASTER, CAMM-ER and MARTE)
- Excludes development contracts (e.g., NAREW) and other potential upside opportunities under discussion

## CONTACTS

[Investor.relations@avio.com](mailto:Investor.relations@avio.com)



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