



THE NEXT REVOLUTION IN CARDIOLOGY

H1 2023 Results & Business Update

September 25, 2023



Safe Harbor

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Aeson® is an active implantable medical device commercially available in Europe ONLY, CARMAT SA., CE0344. The Aeson® TAH is intended to replace ventricles of native heart and is indicated as a bridge to transplant in patients suffering from end-stage biventricular heart failure (INTERMACS classes 1-4) who are not amenable to maximal medical therapy or LVAD and are likely to undergo heart transplant in the 180 days following device implantation. The decision to implant and the surgical procedure must be executed by Health Care professionals trained by the manufacturer. Carefully read the documentation (clinician manual, patient manual & alarm booklet) for characteristics and information necessary for patient selection and good use (contraindications, precautions, side effects).

In USA, Aeson® is currently exclusively available within the framework of clinical trials.

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Speakers



Stéphane Piat
Chief Executive Officer

- Over 20-year experience in the medical device business
- Previously Divisional Vice President Global Market Development at Abbott



Francesco Arecchi
Director of Global Market Development

- Over 15-year experience in Sales and Marketing in global companies in the health sector
- Previously Product Manager EMEA Structural Heart at Abbott



Dr Piet Jansen
Chief Medical Officer

- Over 20-year experience in cardiology sector, notably in Mechanical Circulatory Support devices
- Former Medical Director at World Heart Corp. & VP Clinical Affairs at Jarvik Heart



Pascale d'Arbonneau
Chief Financial Officer

- Over 25-year experience in Finance and Healthcare industry
- Previously VP Finance at GSK



Agenda

I. CARMAT progress

II. Clinical experience

III. Manufacturing update

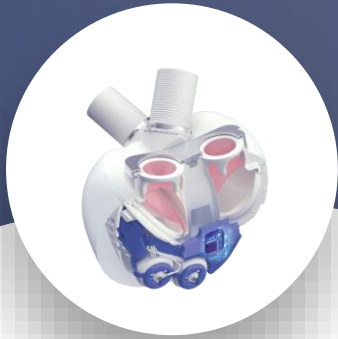
IV. Commercial development

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VI. Outlook

CARMAT's Critical Mission

Solution to solve the advanced heart failure transplant and destination therapy crisis



OUR VISION

Aeson® to become the primary
alternative to Heart Transplants

OUR MISSION

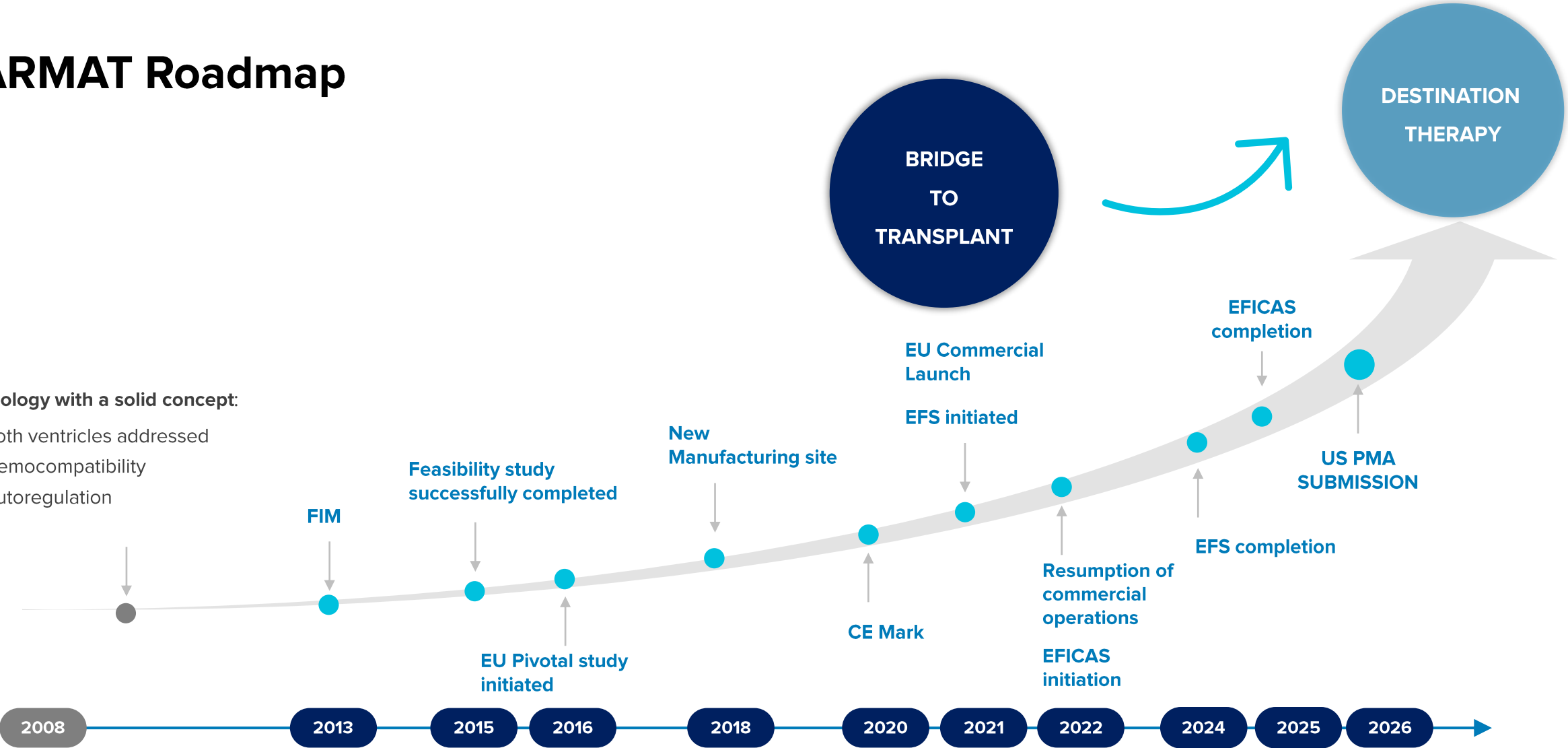
To provide **quality of life** to patients with advanced heart failure by creating innovative and reliable technologies that save lives



CARMAT Roadmap

Technology with a solid concept:

- Both ventricles addressed
- Hemocompatibility
- Autoregulation



CARMAT outperformed all competitive projects

Ready for take off

A fully fledged organization...

- Clinical, superior safety profile
- Manufacturing, ready to support the sales growth
- Supply chain, enhanced continuity and forecast reliability



...geared for commercial acceleration

- A large and increasing hospital base, 40 centers trained across the world
- Backlog of patients built up, fueling sales momentum from Q4 2023
- Geographic expansion underway

Advanced Heart Failure

3%

The percentage of patients treated in need of transplant***



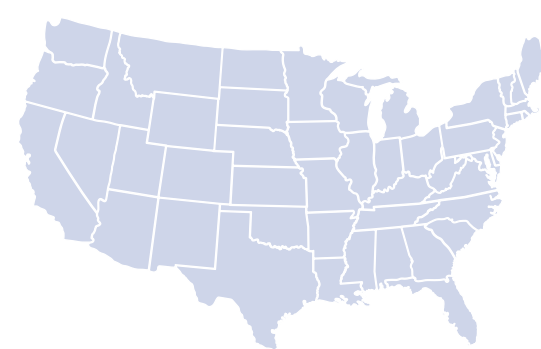
55-77%



The mortality rate of Advanced Heart Failure within a year**



The number of heart transplants in the U.S. and EU*



* Source: J Heart Lung Transplant 2019;38:1056-66
** Source: Circ Heart Fail. 2009;2:320-324.
*** Source: Global data, Carmat estimates

Aeson[®] – a unique solution for an unmet need



Biological blood-contacting surfaces

Minimized shear-stress

- Acquired Hemocompatibility
- Low-intensity anticoagulation

Biventricular, full pulsatility

Electro-hydraulic actuation

- Physiological flow
- Silent operation

Pre-load triggered flow autoregulation

- Activity-based output variation

Unique combination of features providing safety and quality of life



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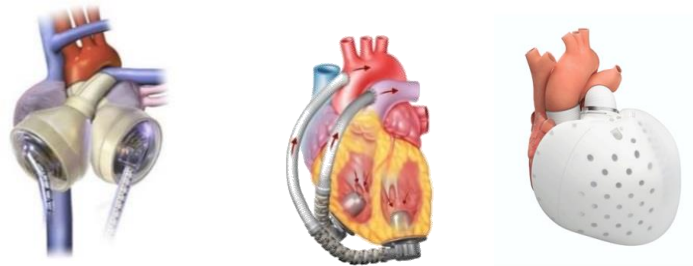
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Aeson[®]'s Unique Competitive Advantages

Four essential requirements to provide physiologic replacement without complications



	SynCardia TAH	BVAD	Aeson [®] TAH
01 Biventricular Support	✓	✓	✓
02 Pulsatility	✓	✗	✓
03 Autoregulation	✗	✗	✓
04 High hemocompatibility	✗	✗	✓

Full physiologic replacement

Unparalleled Safety Profile



No stroke



No intestinal bleeding lesions



No chronic infection at cable site

Clinical experience since restart in November 2022

7



CASES PERFORMED AT 5 CENTERS SINCE RESTART

GROWING CONFIDENCE



IN DEVICE PERFORMANCE RESULTED IN IMPLANTATION OF SICKER PATIENTS

4 patients on temporary support before Aeson® implant

CONSISTENT SAFETY PROFILE

DESPITE SICKER PATIENTS

3 OF 7

PATIENTS SUCCESSFULLY TRANSPLANTED

NO DEVICE FAILURES

100%



PROCEDURAL SUCCESS

86%



SURVIVAL AT 30 DAYS

Overall clinical experience to date

38 PATIENTS

suffering from advanced heart failure have been treated with Aeson[®]



The longest support duration exceeded

25 MONTHS



13 PATIENTS

have been transplanted after Aeson[®] support

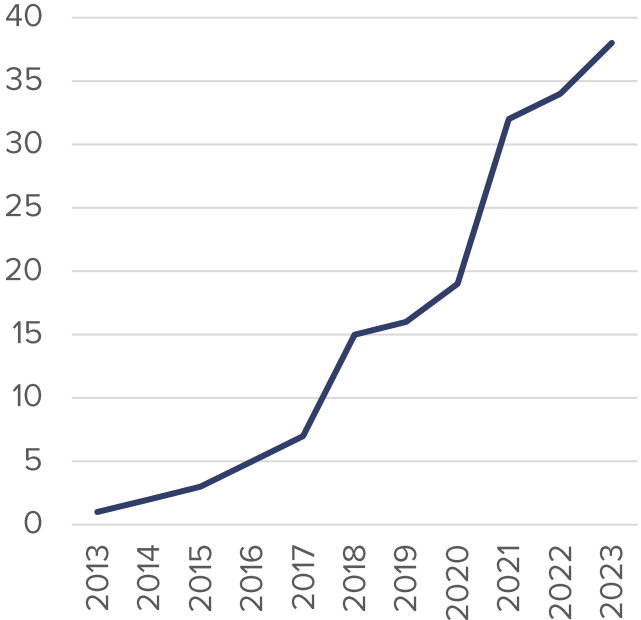


The cumulative experience is

16.9 PATIENT YEARS



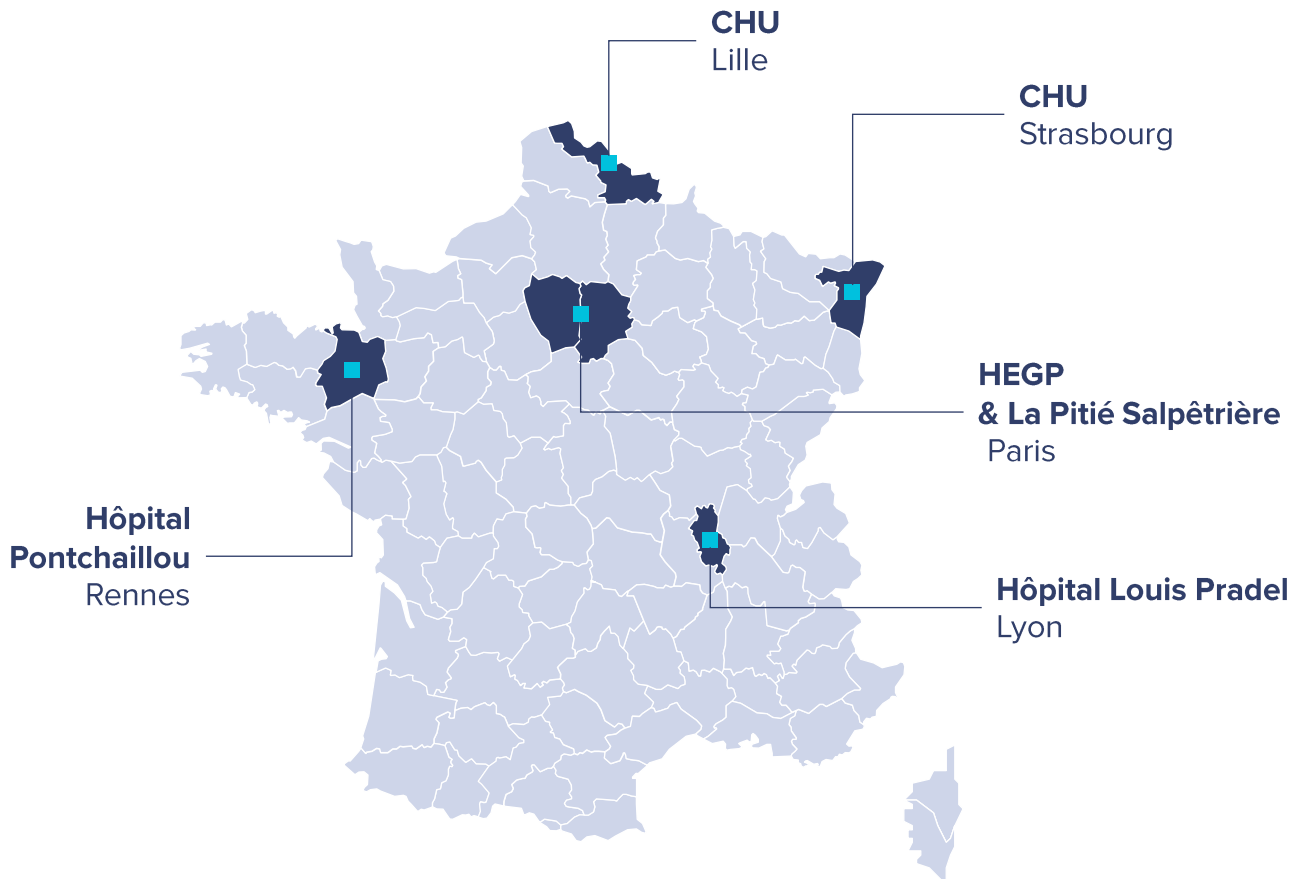
Aeson[®] Implants (Cumulative)



* Data to August 2023

EFICAS Study: catalyst for commercial launch in France - and the U.S.

6 active centers – more anticipated in the coming months



Objectives:

- drive product adoption, support value proposition and get French reimbursement
- Support PMA submission in the U.S.

Deliverables: safety & performance data and health economics data

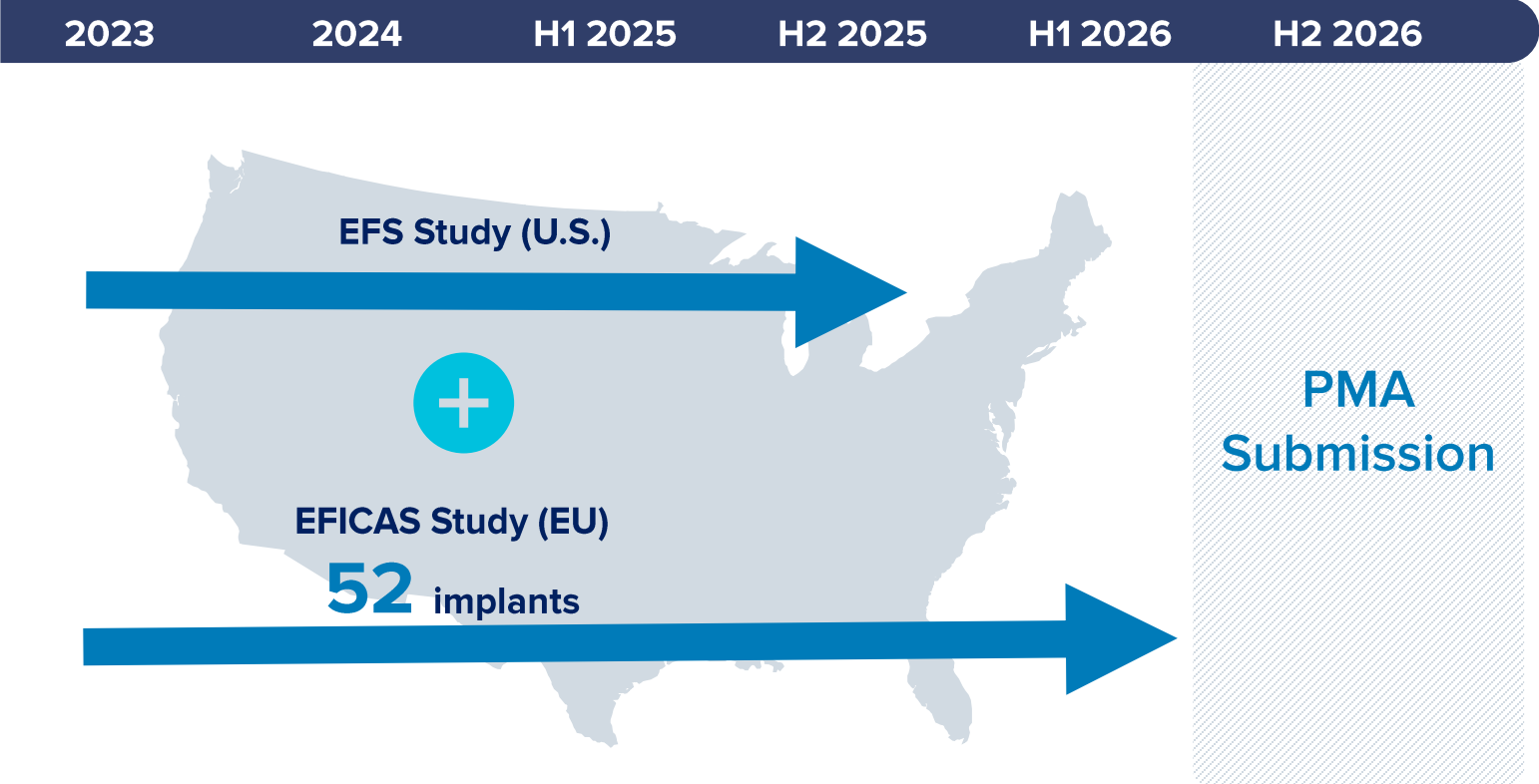
Sample size: 52 patients

Enrollment:

- Started in Q4 2022, expected to get completed in 2025
- 4 additional sites anticipated in 2024

Early Feasibility Study (EFS): Gateway to U.S. approval (PMA)

PMA submission anticipated in 2026



Optimized US market strategy through leverage of EFICAS data



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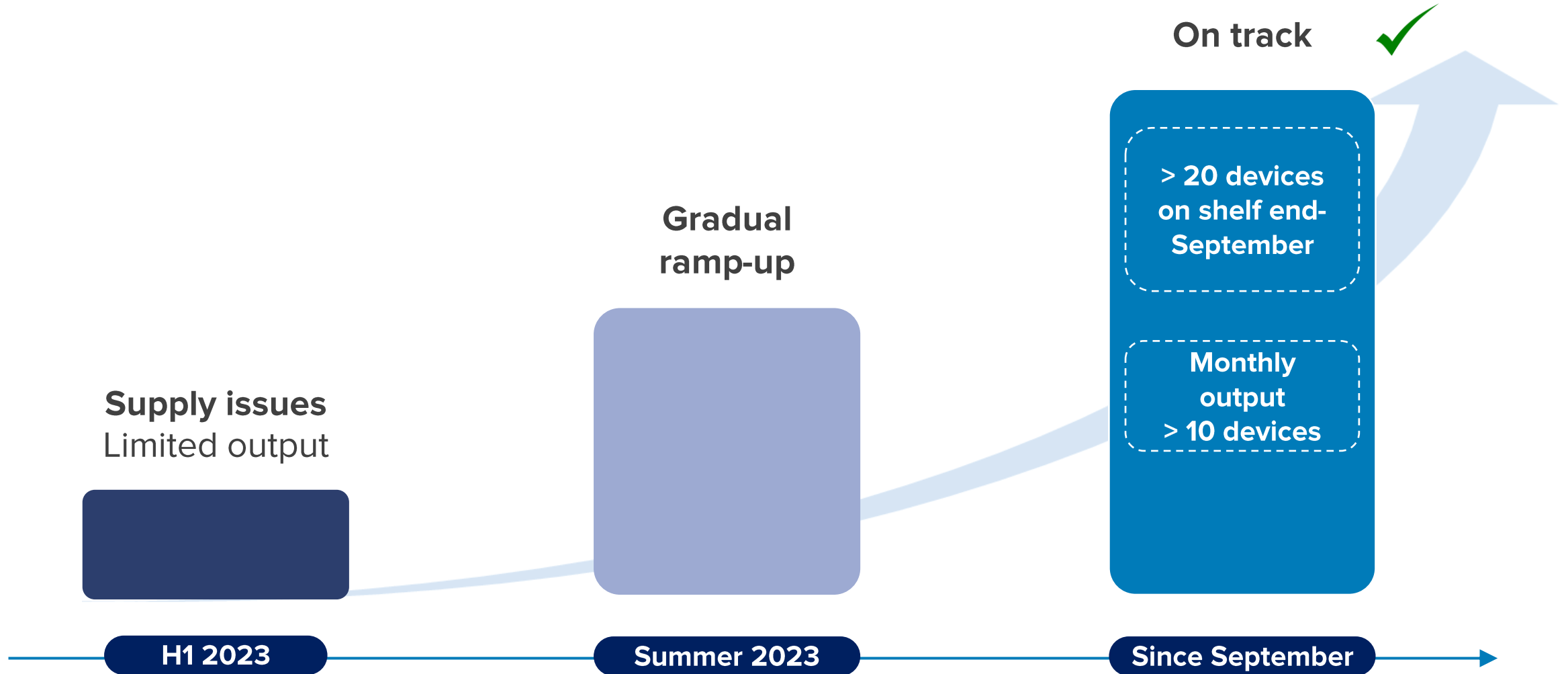
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Production ramping-up

Forecast: 60-70 prostheses produced in 2023



Manufacturing expansion on track

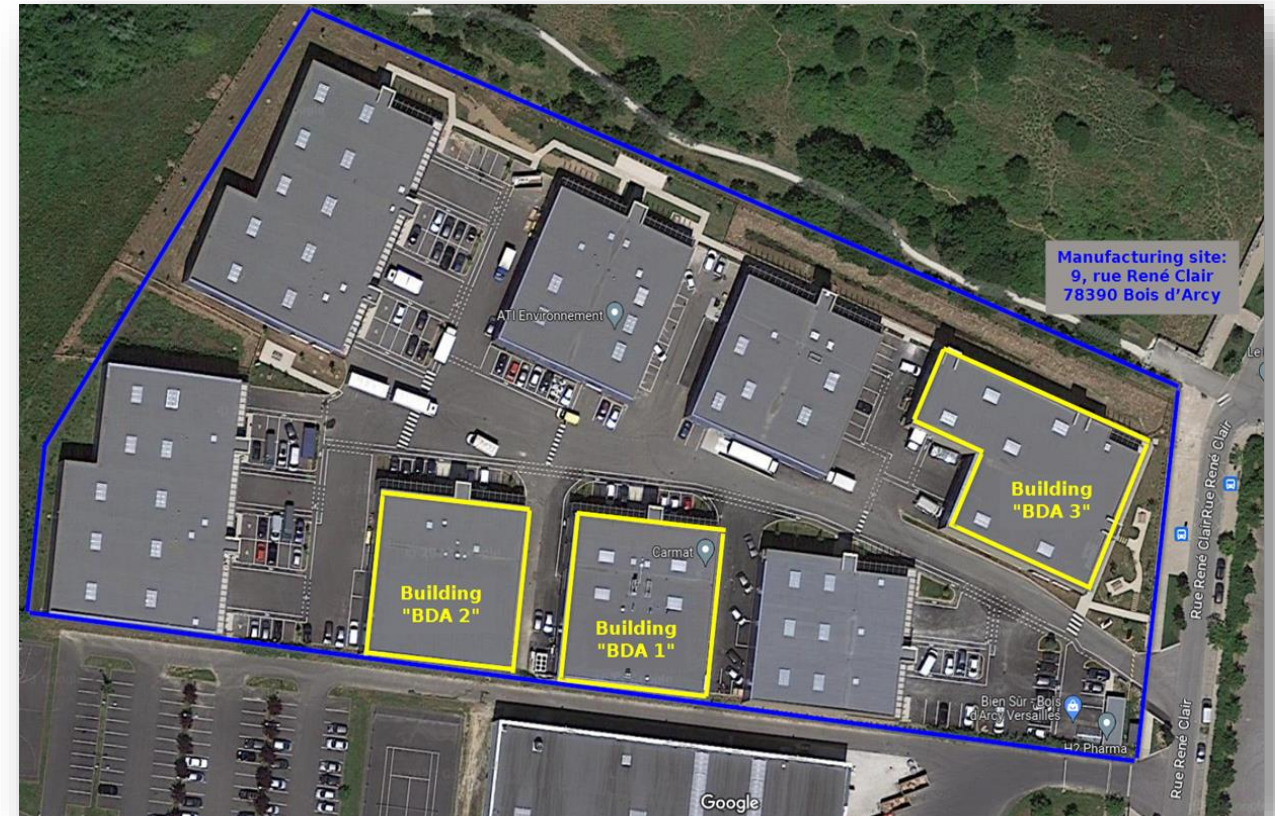
Extension of manufacturing site

End-2023

- Step 1 being finalized - capacity of **500** devices, corresponding to potential sales of up to **€100m**

2027

- Already preparing for Step 2 - capacity of **1,000** devices



Plan to reach annual manufacturing capacity of 500 by end-2023 and 1,000 by 2027



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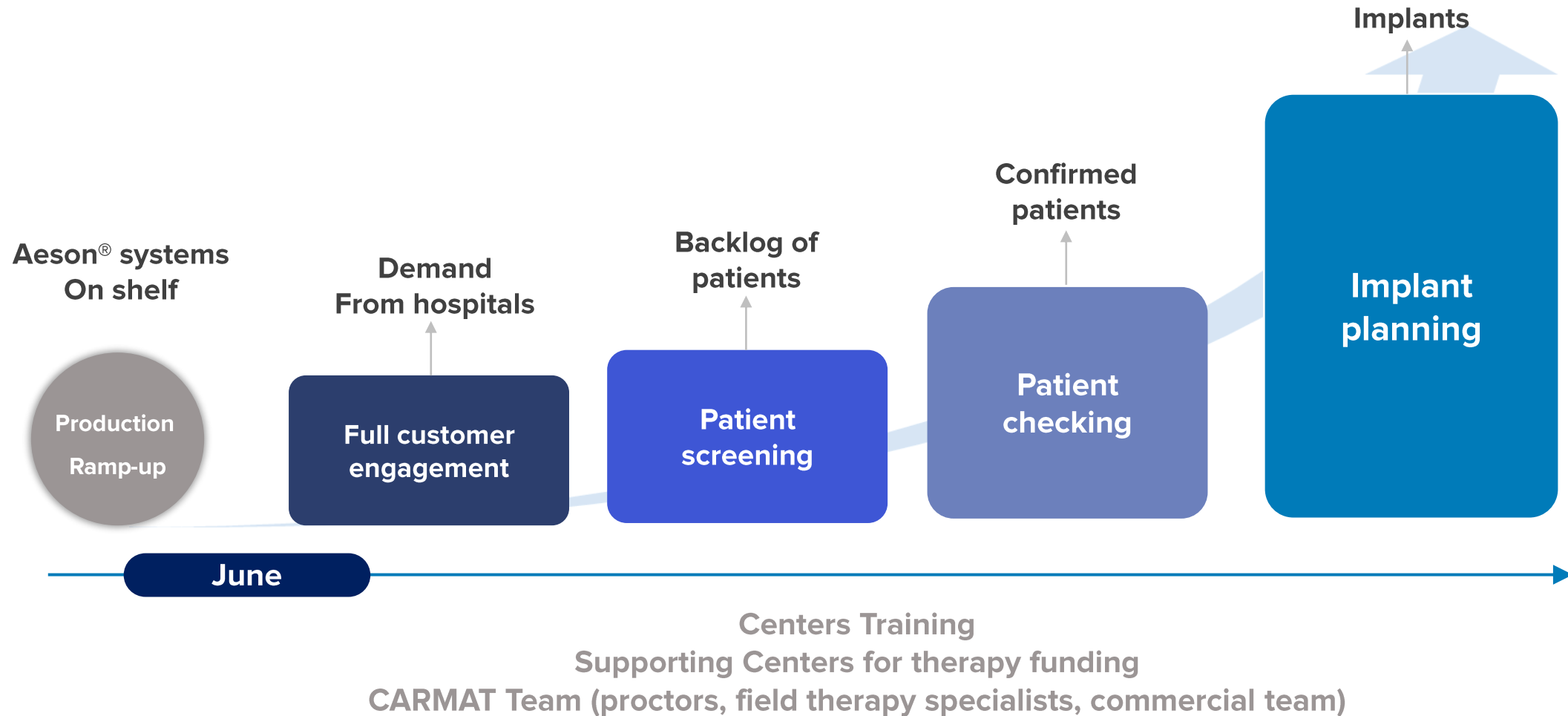
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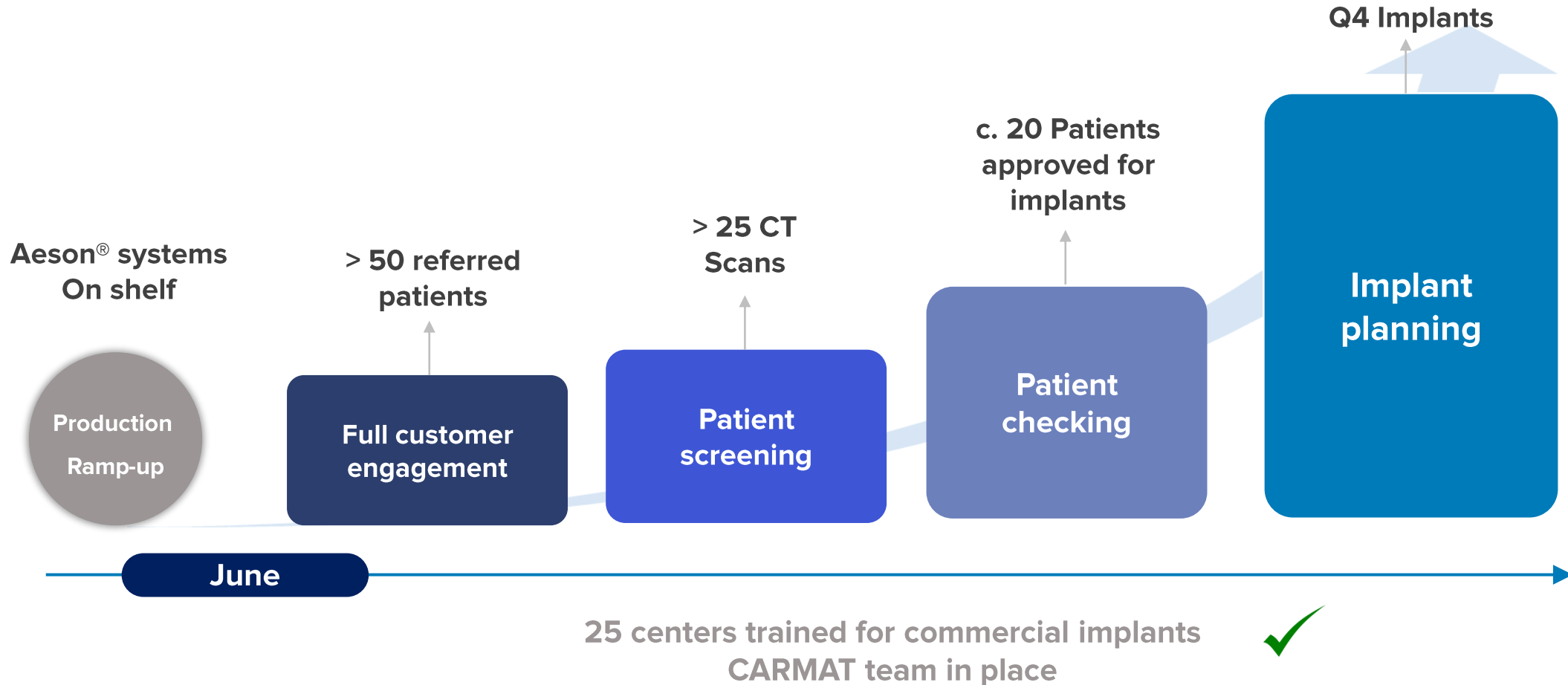
Journey to implants

Converting hospital demand into implants



Building sales momentum

Based on current indicators, we expect strong sales momentum from Q4 2023



Sales Momentum fueled by increasing number of centers and market expansion

Hospitals Activation + Increasing Activity

Hospitals trained for commercial implants:

25 to date → 30 by end-2023

Market Expansion

2 active countries → Germany and Italy

8 under activation → Greece, Switzerland, Austria, Slovenia, Croatia, Serbia, Israel, Saudi Arabia

Sales momentum



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Income Statement

in €m	H1 2023	H1 2022
Sales	0.6	0.0
Net Operating Income (Expense)	(25.9)	(25.1)
Net Financial Income (Expense)	(1.7)	(1.9)
Research and Innovation Tax Credits	1.0	0.9
Net Profit (Loss)	(26.7)	(26.0)

- **Three Aeson® hearts sold in H1**
- **Operating expenses well controlled**
- **Net financial expenses mostly relating to loans**
- **Research tax credit of €1.0m**

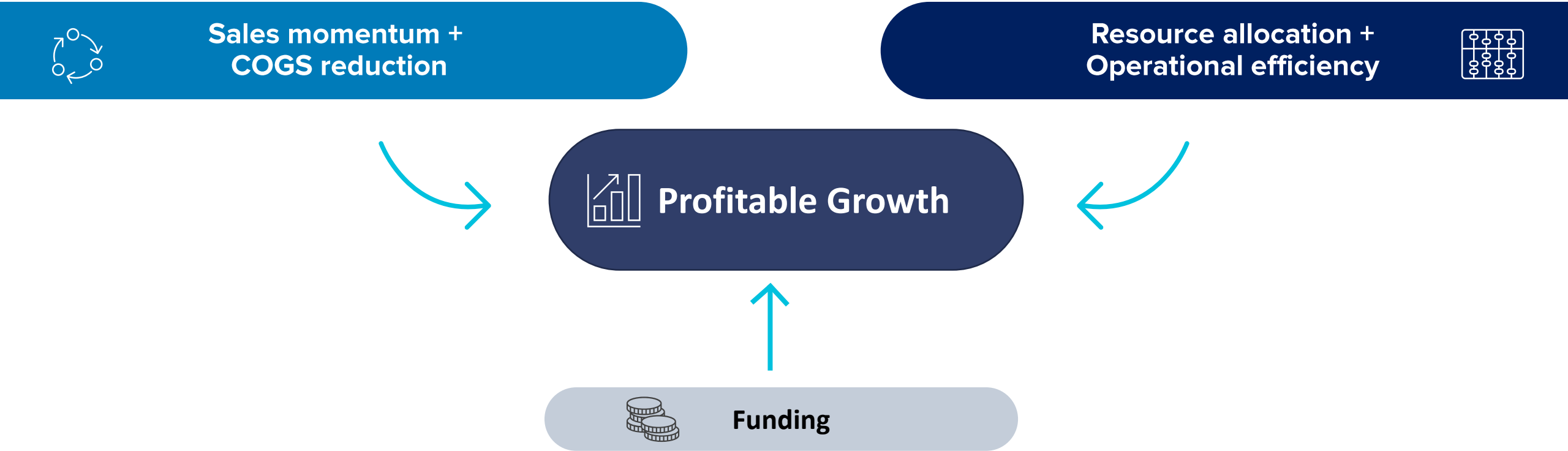
Cash Flow Statement & Cash Runway

in €m	H1 2023	H1 2022
Cash and equivalents at beginning of period	51.4	39.2
CF from operating activities	(30.7)	(30.5)
CF from investment activities	(1.6)	(1.1)
CF from financing activities	4.7	39.8
Cash and equivalents at end of year	23.8	47.4
Net debt	32.7	6.4

- CF from operations and investments broadly flat vs LY (€5.4m / month)
- Moderate increase in Capex
- Non-dilutive financings (EIC, Plan Santé 2030)
- Cash of €24m end-June 2023
- Cash runway until end-October 2023

Financial Strategy

Accelerating the journey towards profitability



Working on different initiatives to foster treasury and extend cash runway in the near term

Shares and Ownership Summary

CARMAT Stock Information at 09/22/2023

TICKER ALCAR (Euronext Paris)

ISIN CODE FR0010907956

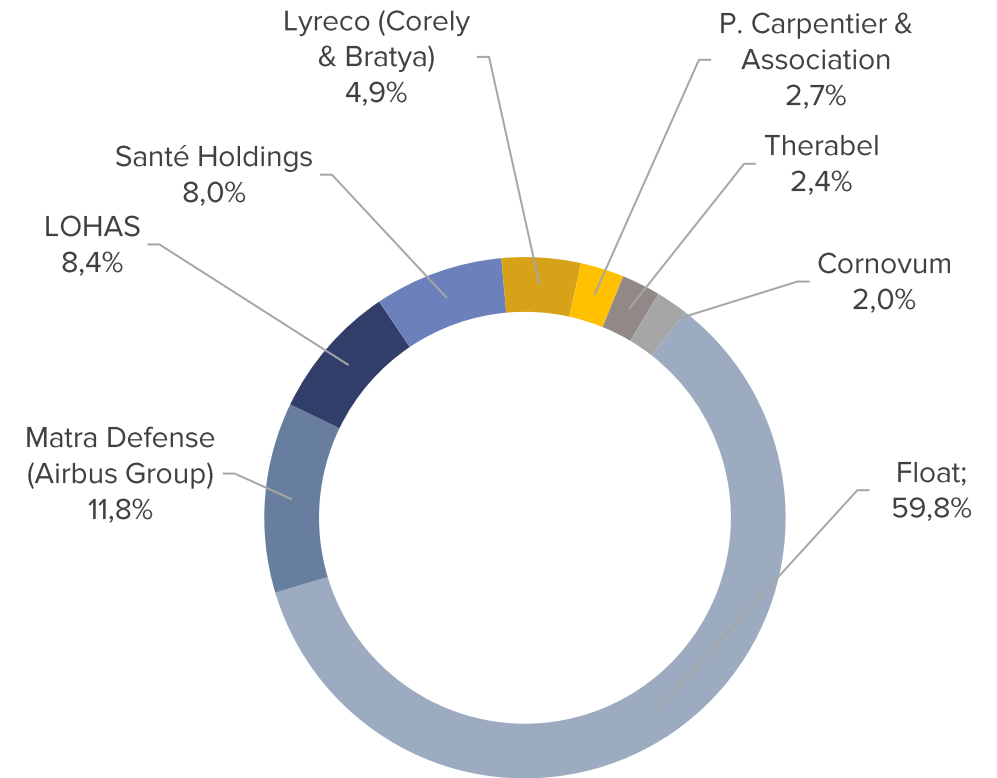
SHARE PRICE €7.44

NUMBER OF SHARES 22,843,594

MARKET CAP €170m

*Lohas: Mr. Pierre Bastid; Santé Holdings: Dr Antonino Ligresti; Lyreco: Gaspard Family

Shareholding structure at 12/31/2022*



Strong support from reference shareholders



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CARMAT – Huge Business Potential

Total Addressable Market



- **+\$40bn by 2030**
- **>200,000 patients**
- **BTT leadership sufficient to generate >\$1bn p.a. within 10 years**

CARMAT Positioning



- **Superior technology vs. alternatives**
- **Significantly ahead of all other projects**
- **Poised to lead heart transplant segment**

Manufacturing Scale-Up



- **Continuing strong investment in own manufacturing capacity to meet the demand for Aeson[®]**

Set for Growth



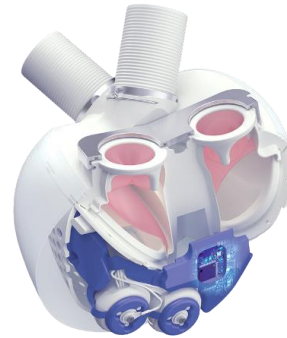
Superior & Reliable Product



Manufacturing ramp-up



Commercial readiness



Sales Forecast of €4-6m in H2 2023

Strong momentum expected in 2024

Strategic Roadmap

Mid-term Objectives

1. Increase manufacturing capacity beyond 1,000 devices p.a. by 2027
2. Achieve reimbursement in all key geographies by 2025
3. Drastic COGS reduction
4. Strengthen manufacturing supplier base by end-2024
5. US PMA submission by 2026

2027 Breakeven

Long-term Objectives

1. Frontline treatment for heart replacement
2. From BTT to Destination Therapy
3. Cableless device
4. Real time data monitoring optimizing patient treatment and well-being
5. Worldwide footprint

USD billion(s) market cap Company

Ultimate objective: to become the 1st total artificial heart approved for destination therapy and address the donor organ shortage across the world



THANK YOU

**CARMAT**