

Business Update and Outlook



Safe Harbor

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The presentation contains summary information about the Company. Any decision to acquire or subscribe for shares in the Company should be made solely on the basis of the information contained the prospectus approved by the Autorité des marchés financiers on January 17, 2024 under number 24-005. This prospectus comprises: (i) the Company's 2022 universal registration document filed with the Autorité des marchés financiers on April 21, 2023 under number D.23-0323; (ii) an amendment thereto filed with the Autorité des marchés financiers on January 17, 2024 under number D.23-0323-A1; and (iii) a securities note, including a summary of the prospectus. Copies of this prospectus are available free of charge from CARMAT's head offices, 36, avenue de l'Europe, Immeuble l'Etendard Energy III, 78140 Vélizy-Villacoublay, France. This document is also available online on the websites of the Autorité des marchés financiers (www.amf-france.org) and CARMAT (www.carmatsa.com).] In particular, we draw your attention to the risk factors described in this document and, in particular, on the risk factors associated with the Company's significant need for short-term financing, which could result in the partial or total loss of any investment in its securities.

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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



Dr Piet Jansen *Chief Medical Officer*

- Over 20-year experience in cardiology sector, notably in Mechanical Circulatory Support devices
- Previously Medical Director at World Heart



Francesco Arecchi
Director of Global Market Development

- Over 15-year experience in sales and marketing in healthcare in global companies
- Previously Product Manager EMEA Structural Heart at Abbott



Pascale d'Arbonneau Chief Financial Officer

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



Dr Anne-Céline Martin, PhD. Cardiologist

 Medical-Surgical Unit for Severe Heart Failure at Hôpital Européen Georges-Pompidou, Paris





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I. CARMAT 2023 Achievements

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CARMAT's Critical Mission

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





High Unmet Medical Need in Heart Failure

200,000

Patients suffering from heart failure every year*

6,000



The number of hearts transplants**

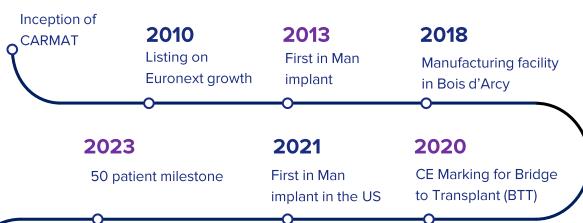


97% of patients in need of a transplant are not treated



Our Successful Journey

2008

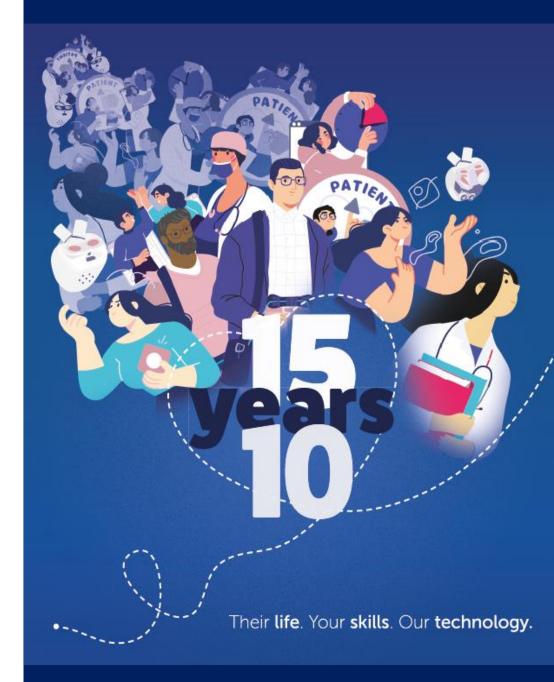


2024

A fully-fledged company to support the commercial uptake of the only CE marked TAH, and prepare for the Destination Therapy (DT) indication

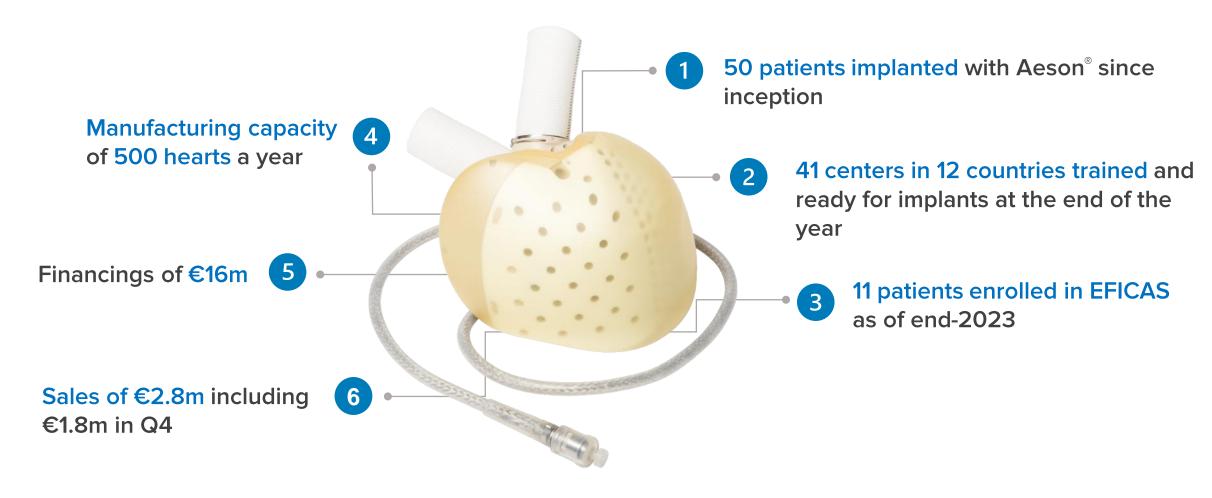
DESTINATION THERAPY

CARMAT outperformed all competing projects in terms of technology and pace of development





2023 Achievements



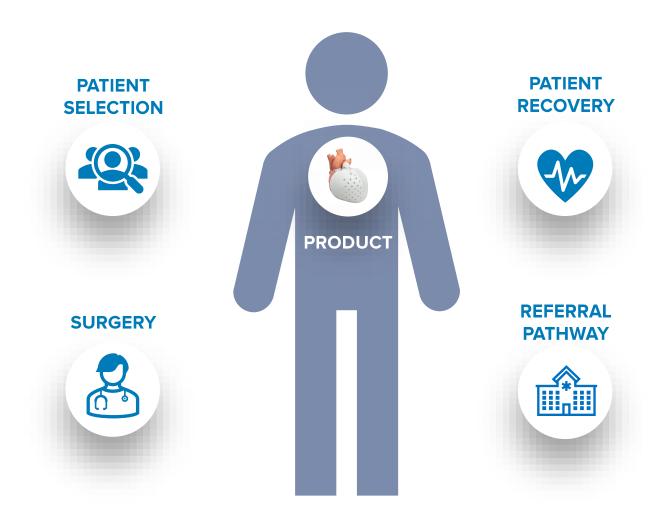
2023 was a structuring year towards a successful 2024



2023 Learnings to Build-Upon

The WOW Effect!

experienced at each first implant reinforces our conviction that adoption of Aeson® will get momentum in 2024









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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	Ø	Ø	②
02 Pulsatility		8	⊘
03 Autoregulation	8	8	Ø
04 High hemocompatibility	8	8	②

Full physiologic replacement

Unparalleled Safety Profile



No disabling stroke



No intestinal bleeding lesions



10 years of growing clinical experience since first implant in 2013

50 PATIENTS suffering from advanced heart failure treated with Aeson® TAH



The longest support duration exceeded

25 MONTHS

14 PATIENTS

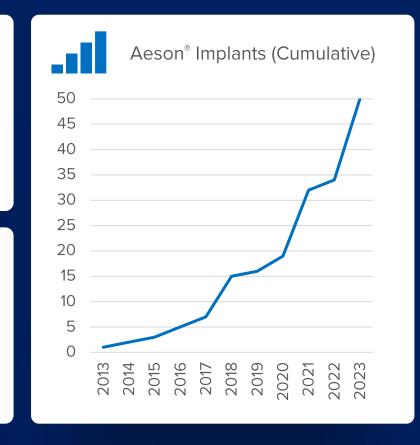
transplanted after Aeson® support (Bridge To Transplant)



The cumulative experience is

19.2

PATIENT YEARS



Data as of December 31, 2023



Game Changing Therapy for Physicians & Patients



Safe surgical procedure

- Patient selection with proctors
- 3D virtual implant tool
- 100% Successful procedure
- Fast recovery



Quality of Life

- Blood flow automatically responding to activities
- Few drugs and low-intensity anticoagulation
- Simple handling of external components



Sustainable support

- Auto-pilot mode
- Unique hemocompatibility profile



A revolution in cardiology



Revolution in the management of advanced heart failure

- Organ shortage
- The only alternative to transplantation
- Today a bridge to transplant, tomorrow a destination therapy



Technological revolution based on unique features

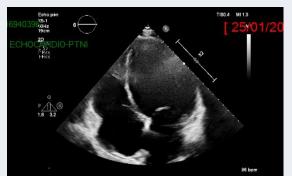
- Hemocompatibility
- Pulsatility
- Self-regulation

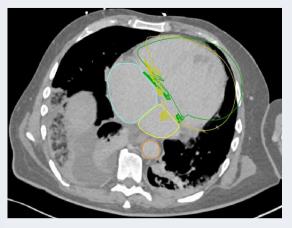


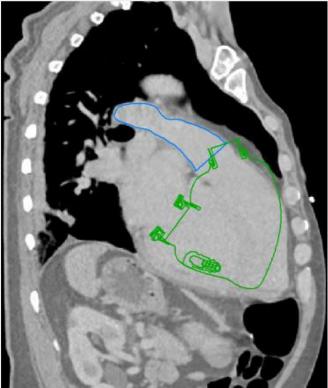
Philosphical revolution

Real-life clinical experience (1/2)

- Patient aged 55
- Dilated heart with right and left failures
- Organ involvement: renal failure, liver failure
- Failure to wean off cardiotropic drugs
- Several contraindications to transplant and deterioration of clinical condition

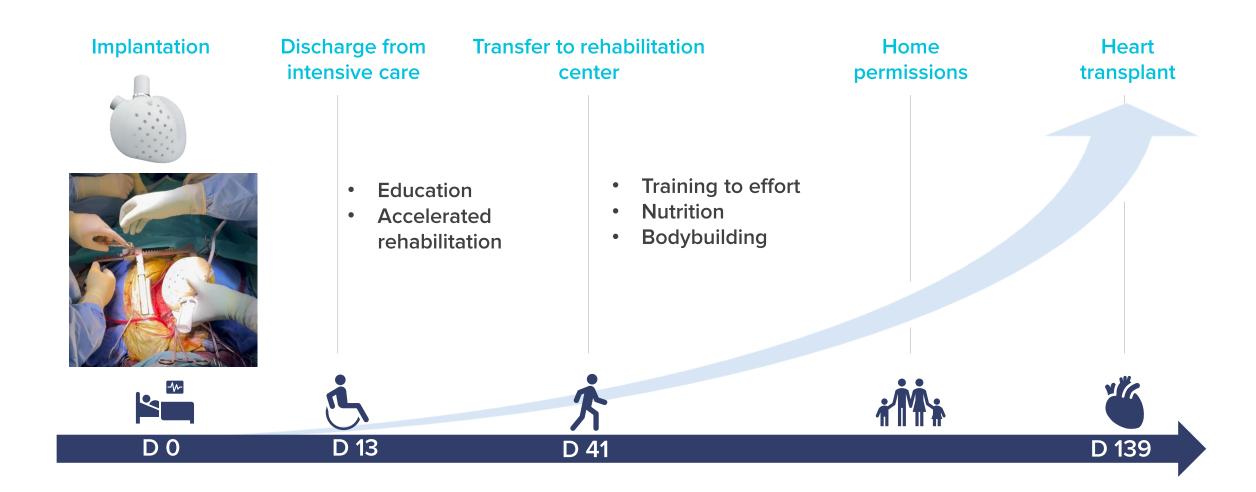








Real-life clinical experience (2/2)



Towards making Aeson® a first-line therapy

1

Trust the device

- Efficiency
- Reliability
- Safety (no stroke/bleeding)
- Ease of use

Select the right patients at the right time

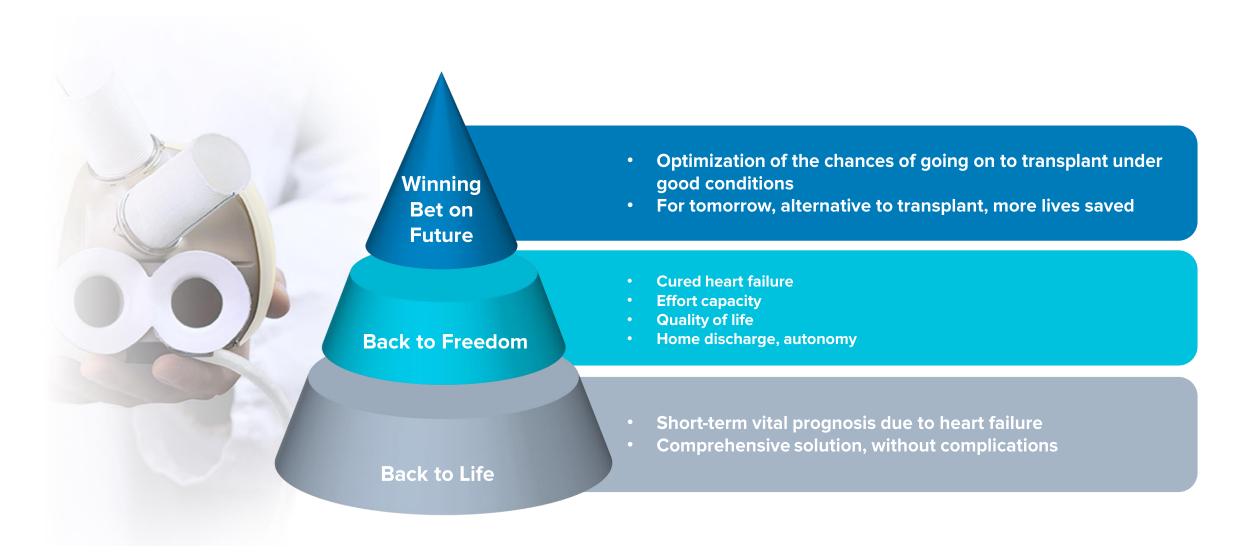
- Aiming for maximum possible benefit for each patient
- Improving collective results
- Expanding the universe of possibilities

Integrating
Aeson® into the
therapeutic arsenal

- Make this therapy the first choice, rather than the exception
- Dare to take the plunge (as a team, with support from CARMAT)



What it means for the patient









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Commercial Readiness



33 centers trained in 11 different countries for commercial implants



Field force scaled for sales growth



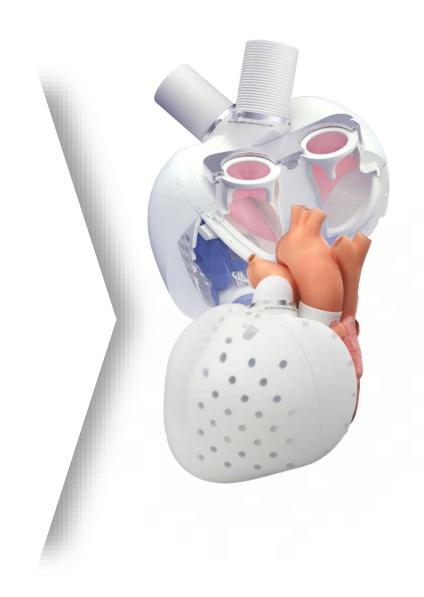
Supply available to serve demand



Better understanding of patient referral pathway

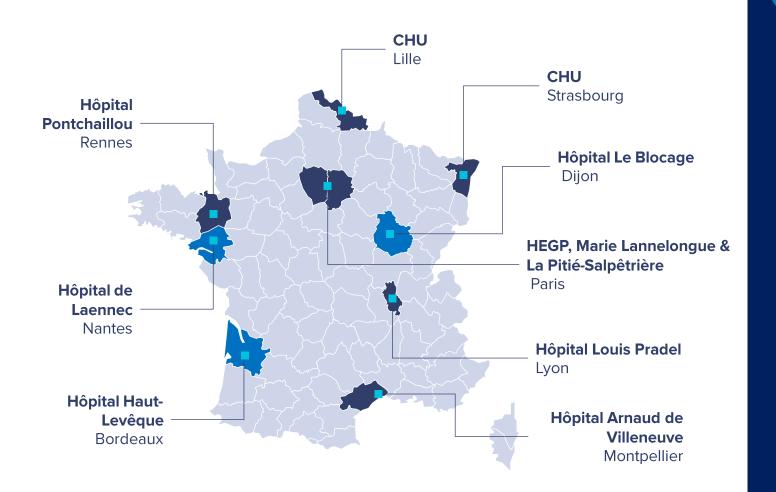


Patient selection broadening-up





EFICAS Study Getting Pace



11 implants to date (including 7 in Q4 2023) 11 hospitals (including 8 fully trained)

Data: safety & performance data and health economics data

Sample size: 52 patients

Calendar: completion anticipated in 2025

Objectives:

- drive product adoption
- support value proposition and get
 French reimbursement
- support PMA in the US



2023 Promising Dynamics

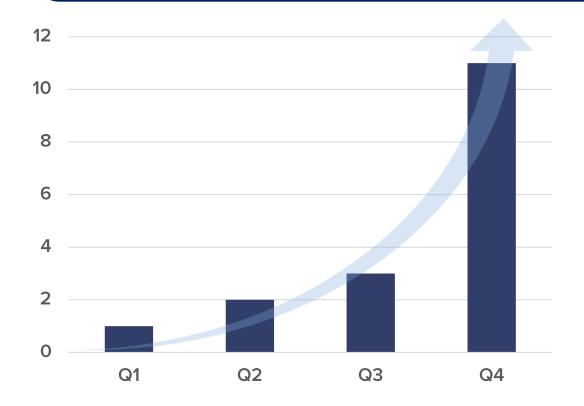
60% of trained hospitals referred patients in 2023

30% of trained hospitals made implants in 2023

9 new sites performed their first implants in 2023

4 patients a month in Q4 vs. 1 patient a month in Q3

Number of devices sold in 2023



Strong momentum in Q4 2023, a promising runway for 2024

Commercial Levers Supporting Sales Momentum in 2024

Market development

- Germany/DACH & Italy to remain the key focus areas
 - **→** Convert trained hospitals into implanting sites
- Market expansion in Europe and Middle-East
 - Strengthen distribution network, start implanting

Secure reimbursement for Aeson®

- Extend reimbursement coverage in Germany
- Carve-out innovation funding in other countries

Customer engagement

- Build upon customer experience and KOL support
- Build referral pathway



Increase Customer Engagement Leveraging Growing Clinical Experience

Surgeons



Intensivists

Case Reports/Publications



Webinars/Local Symposia



Dreaden – CARMAT Meeting
Friday
1 December 2023

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Dr. Acard (Paris)

@ SITO Conference







September 2023

November & December 2023

October 2023

November 2023

Towards wider adoption of Aeson® by the medical community







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Manufacturing Scale-Up on Track

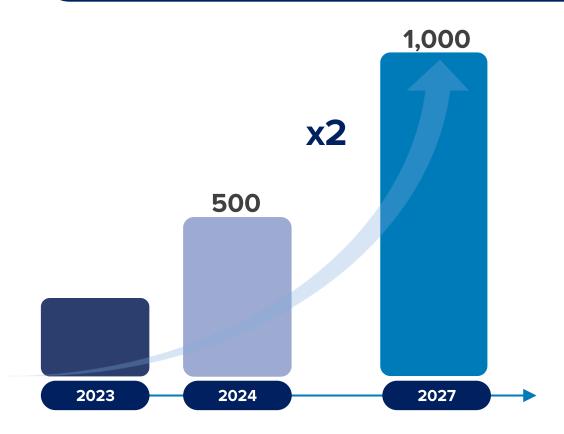
Step 1 - Manufacturing capacity raised to 500

- 2nd production building ('BDA2') certified and active
- Ca. 20 products on shelf
- 2024 output in excess of 100 devices

Step 2 – Further increase to 1,000+ by 2027

Options currently being considered

Ramping up manufacturing capacity



New Production Building ('BDA2') Certified in Q4 2023 and Active









Manufacturing capacity increased to 500 hearts/year as of early 2024



Financial Guidance

2024

2027

Annual Sales of €14-20m

Breakeven

- 50 hospitals trained for commercial implants by YE
- 30 implants in EFICAS study in 2024
- Right level of inventory

- Strong sales momentum
- Drastic COGS reduction
- US Launch in 2027



Navigating the road to breakeven

Cash runway until end-January 2024



• Funding of €16m in 2023

Cash-burn reduction



Strong financial discipline

20% cash-burn reduction between 2023 and 2024

Restructuring of financial debt



- Conditional agreement in principle with EIB^[1]
- No repayments due before end-July 2026
- Repayments in cash reduced through 'equitization' of the loan
- Equity raise to extend cash runway beyond end-January 2024
- Further equity raises anticipated this year
- All options considered for additional financings over 2024-2027 until breakeven



[1] [Non-binding agreement reached in January 2024, subject to approval by EIB, final negotiation & contracting, and to reaching a debt restructuring agreement with BNP Paribas and Bpifrance re. state-backed loans. Discussions with these two banks are on-going. 'Standstill' in place with EIB, BNP Paribas and Bpifrance until Feb. 22, 2024 to facilitate these discussions. (see the Company's press release of January 12, 2024 for further details on the terms and conditions of this conditional agreement in principle)



Further financing until breakeven

Capital increase available to all

Structure of the offer



Capital increase through a public offering without preferential subscription rights

Subscriptions period: January 18 - January 25, 2024



- Price per share: €3.99
- To subscribe to the public offering: visit the dedicated website* or contact your financial intermediary

Initial amount of around €15m



- Minimum of €11m (75% of the initial amount); Maximum of €20m (if the extension clause and the greenshoe are fully exercised)
- Subscription and underwriting commitments of approximately €9m

Partial funding of the short-term financial needs



- Partial coverage of the financing requirements for the forthcoming
 12-month period (i.e. €50m**)
- Anticipated extension of the cash runway to the beginning of May 2024



^{**} To which must be added €15m payable on 31 January 2024 in respect of the repayment of the first tranche of the EIB loan, should the conditional agreement in principle reached with the EIB not be converted into a definitive agreement (see previous page).

^{*} For more information on this capital increase, visit the dedicated website: www.carmat-finances.com





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A huge business potential: heart failure, leading cause of death

Total addressable market of \$40+ bn by 2030



- Out of 200,000 patients p.a., only 6,000 benefit from a heart transplant
- BTT leadership sufficient to generate more than \$1bn p.a. within a
 10-year horizon

CARMAT positioning



- Superior technology vs. alternatives
- Significantly ahead of all other artificial heart projects
- Therapy poised to lead heart replacement segment

Hospital capacity



Build referral pathway for advanced Heart Failure patients

Manufacturing scale-up



Strong investment behind manufacturing capacity in order to meet the demand for Aeson®



Strategic roadmap and key forthcoming milestones

2024 annual sales of €14-20m

2024 objectives Mid-term objectives Increase manufacturing capacity beyond 1,000 devices Successful commercial uptake in Europe p.a. by 2027 2 2 **Reach 75% in EFICAS study enrolment (France)** Achieve reimbursement in all key geographies 3 3 Ca. 50 centers trained for commercial implants **Drastic COGS reduction** Ca. 20% cash burn reduction vs. 2023 4 4 Strengthen manufacturing supplier base 5 5 Filing for EFS resumption (cohort 2) in the US US market launch in 2027

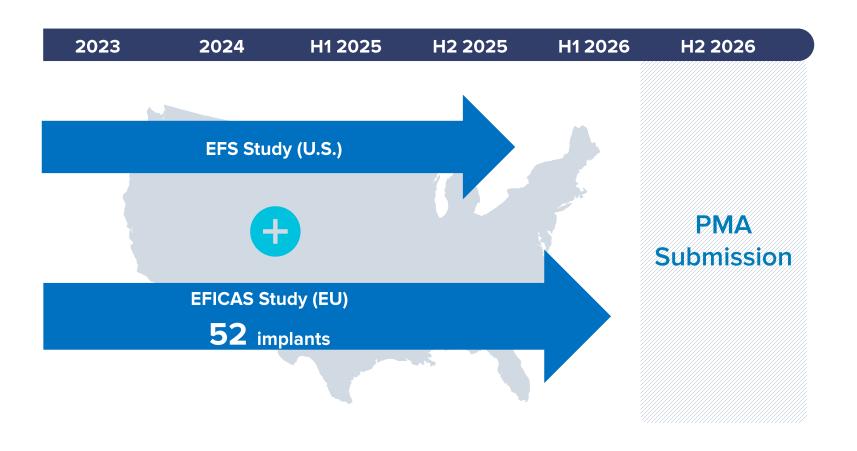
Our ultimate objective: become the 1st total artificial heart approved for Destination Therapy (DT) to address the donor organ shortage

2027 breakeven



U.S. Market Access

Early Feasibility Study (EFS) and EFICAS data: Gateway to US approval (PMA)



Optimized US market
strategy through leverage
of EFICAS data

Horizon Destination Therapy

EXTENDING DURABILITY

and software will make of Aeson a

long-lasting product.

Continuous improvements on hardware

PERFORMANCE DT **QUALITY OF DURABILITY** LIFE

SUPERIOR CLINICAL RESULTS

Aeson's unique biocompatibility profile prevents from causing any disabling stroke or any GI bleeding.

BETTER QUALITY OF LIFE

Aeson's unique mechanism of action (autoregulation and right/left balance) allow for a better recovery and quality of life

AESON® is the best positioned device for Destination Therapy (DT)



Why invest in CARMAT now?

- 1 A huge total addressable market
 - 2 A superior and unique technology
 - 3 A proven leadership team
 - 4 A fully-fledged company

A commercial stage company



CARMAT