DRIVING THE REVOLUTION IN CARDIOLOGY

Webinar: 2024 achievements and outlook

January 8, 2025

CARMAT

Disclaimer

This presentation and the information it contains do not constitute an offer to sell or subscribe, or the solicitation of an order to buy or subscribe, CARMAT shares in any country.

This presentation may contain forward-looking statements about the Company's objectives and prospects. These forward-looking statements are based on the current estimates and expectations of the Company's management and are subject to risk factors and uncertainties, including those described in its universal registration document filed with the Autorité des Marchés Financiers (AMF) under number D.24-0374, as updated by an amendment to the 2023 universal registration document filed with the AMF on 17 September 2024 under number D. 24-0374-A01 (together the '2023 Universal Registration Document'), and available on CARMAT's website.

Readers' attention is particularly drawn to the fact that the Company's current financing horizon is limited to February 2025 and that, given its financing requirements and the dilutive instruments in circulation, the Company's shareholders are likely to experience significant dilution of their stake in the Company in the short term. The Company is also subject to other risks and uncertainties, such as the Company's ability to implement its strategy, the pace of development of CARMAT's production and sales, the pace and results of ongoing or planned clinical trials, technological developments, changes in the competitive environment, regulatory developments, industrial risks and all risks associated with managing the Company's growth. The forward-looking statements contained in this presentation may not be achieved as a result of these factors or other unknown risks and uncertainties or factors that the Company does not currently consider material and specific.

Aeson® is an active implantable medical device commercially available in the European Union and other countries recognising the CE mark. The Aeson® total artificial heart is intended to replace the ventricles of the native heart and is indicated as a bridge to transplant in patients with end-stage biventricular heart failure (Intermacs classes 1-4) who cannot benefit from maximal medical therapy or a left ventricular assist device (LVAD) and who are likely to benefit from a heart transplant within 180 days of implantation. The decision to implant and the surgical procedure must be carried out by healthcare professionals trained by the manufacturer. The documentation (clinician's manual, patient's manual and alarm booklet) must be read carefully to learn about the characteristics of Aeson® and the information required for patient selection and proper use (contraindications, precautions, side effects) of Aeson®. In the United States, Aeson® is currently only available as part of a feasibility clinical trial approved by the Food & Drug Administration (FDA).

January 8, 2025

Speakers

Chief Executive Officer

- Over 25-year experience in the medical device business
- Previously Divisional Vice President Global Market Development at Abbott

Deputy General Manager & Chief Financial Officer

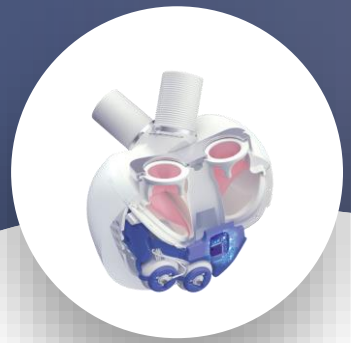
- Over 25-year experience in finance and healthcare industry
- Previously VP Finance at GSK

Chief Medical Officer

- Over 25-year experience in cardiology sector, notably in Mechanical Circulatory Support devices
- Previously Medical Director at World Heart

CARMAT's Critical Mission

To solve the advanced heart failure transplant and destination therapy crisis



OUR MISSION

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

OUR VISION

Aeson® to become the primary
alternative to Heart Transplants

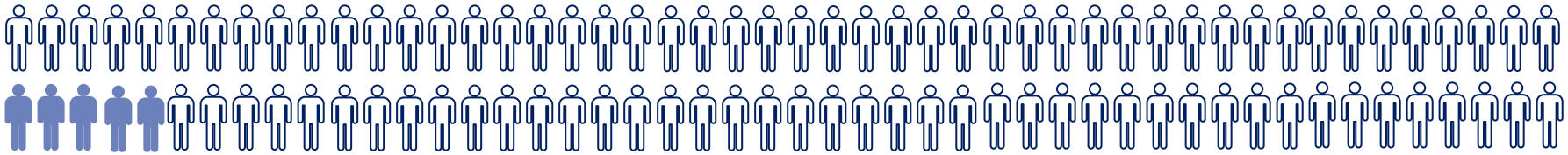
High unmet medical need in advanced biventricular heart failure

150,000

Patients suffering from advanced biventricular heart failure every year*

7,300

The number of hearts transplants**



95% of patients in need of a transplant are not treated

* Source: Savarese G & al. Global burden of heart failure: a comprehensive and updated review of epidemiology. Cardiovasc Res. 2022; 118(17): 3272-3287

** Source: GODT: www.transplant-observatory.org (Europe + USA)

After more than 15 years of R&D, commercial phase is well underway

2008
Inception of CARMAT

2010
Listing on Euronext Growth

2013
First-in-Man implant

2018
Manufacturing facility in Bois-d'Arcy

2020
CE Marking for Bridge to Transplant (BTT*)

2021
First-in-Man implant in the US

2023
50-patient milestone

2024
A fully-fledged company to support the commercial uptake of the only CE marked Total Artificial Heart, and prepare for the Destination Therapy (DT**) indication

CARMAT well positioned commercially and on the path to destination therapy

* BTT - Bridge to transplant
** DT - Destination therapy: the patient would remain under Aeson® support without subsequent heart transplant

2024, a robust and dynamic year for CARMAT

STRONG OPERATING PERFORMANCE

42 Aeson® implants

€7m annual sales

x2.5 (vs 2023)

5 implants per month
over the last 4 months of 2024

70% of total targeted inclusions in the EFICAS study

ONGOING GEOGRAPHIC EXPANSION

60 hospitals*
including 50 trained for commercial implants and 10 in the EFICAS study

+19 (vs 2023)

in 17 countries*
+5 (vs 2023)

Distribution contracts
in place in 9 countries

SIGNIFICANT CASH-BURN REDUCTION

-20%
reduction in cash-burn
vs 2023

<€3.8m
average monthly cash-burn in 2024
(vs €4.9m in 2023)

AMBITION 2025: double sales again and continue cash-burn reduction

* Excluding the United States, where 9 hospitals are trained as part of the EFS (Early Feasibility Study)

Agenda

I. Clinical experience

II. Commercial development

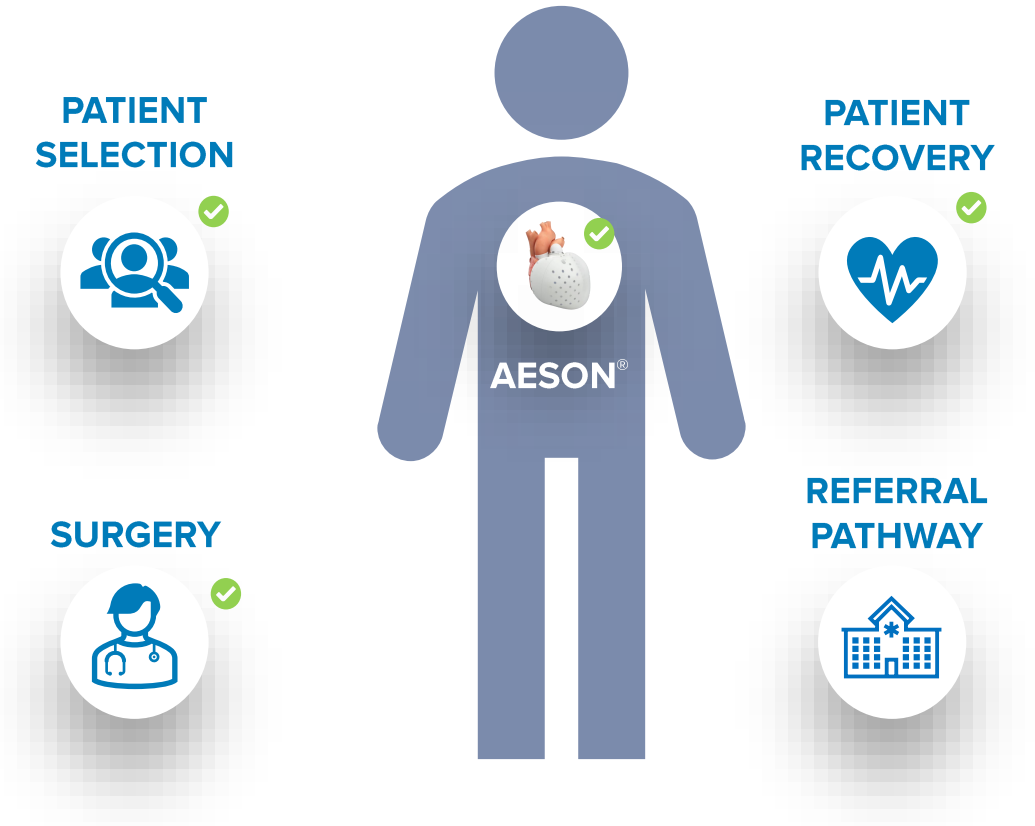
III. Manufacturing and finance

IV. Outlook

All indicators tracking well to make Aeson® a first-line treatment

The WOW Effect!

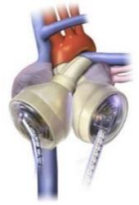
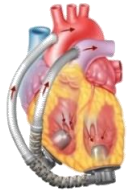
experienced at each first implant in a hospital makes us confident that Aeson®'s adoption will continue to gather pace



Patient pathway to be progressively developed to unlock Aeson®'s full potential

Aeson®: the only device offering full physiological heart replacement

Four essential requirements to provide physiologic replacement without complications


	SynCardia	BiVAD	Aeson®
01 Biventricular Support	✓	✓	✓
02 Pulsatility	✓	✗	✓
03 Autoregulation	✗	✗	✓
04 High hemocompatibility	✗	✗	✓

Full physiologic replacement

Unparalleled Safety Profile

No embolic stroke

No intestinal bleeding lesions

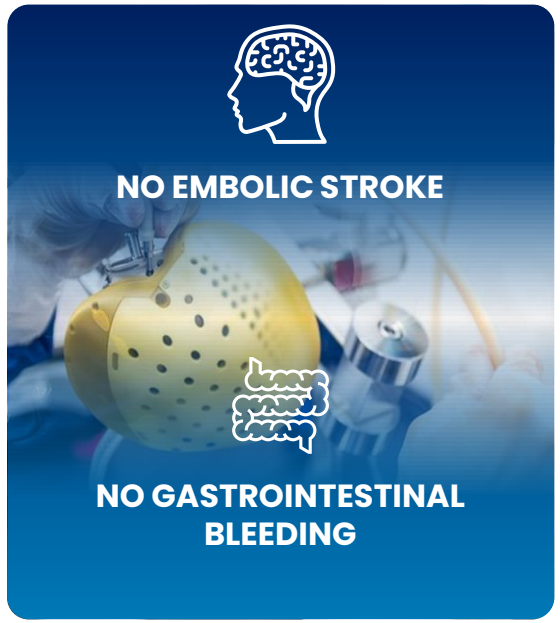
Substantial & promising experience since first implant in 2013

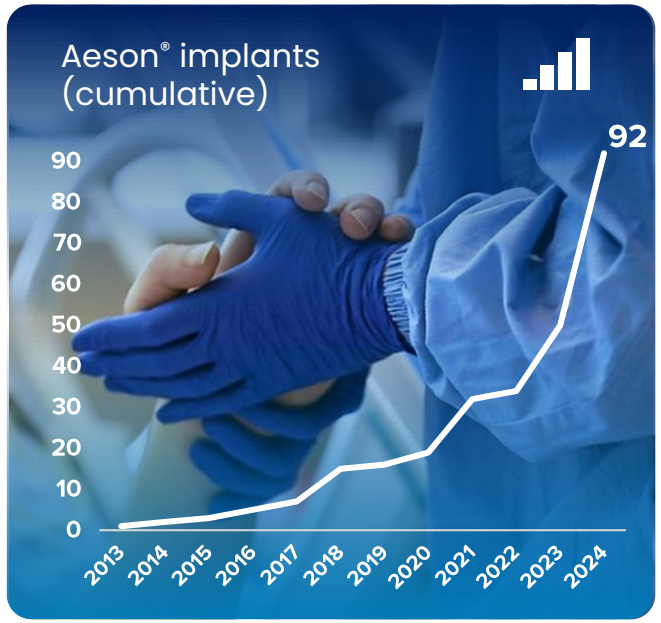
92 PATIENTS
treated with Aeson®

2 WOMEN TREATED
In Germany and the United States

54 YEARS
average age of treated patients*

32 PATIENTS
transplanted after Aeson® support since inception





25 MONTHS
the longest support duration

TREATMENT OF INCREASINGLY SEVERE PATIENTS

50% INTERMACS 1-2**
treatment of patients with very severe heart failure*

51% OF TREATED PATIENTS
With pre-implant ECLS (ECMO type)***

37 PATIENTS-YEARS
cumulative experience

Data as of December 31, 2024

* Aggregated data from November, 2022 to December 31, 2024
** Intermacs 1: state of cardiogenic shock; Intermacs 2: gradual decline despite support from inotropes
*** ECMO = Extracorporeal Membrane Oxygenation.

Game changing therapy for physicians & patients

Safe surgical procedure

- Patient selection guided by proctors
- Pre-implant 3D virtual tool to check anatomical fit
- 100% successful procedure
- Fast recovery

Quality of Life

- Blood flow automatically adapting to patient's activities
- Few drugs and low-intensity anticoagulation
- Simple handling of external components

Sustainable support

- Plug & Play device
- Auto-pilot mode: nothing to do
- Unparalleled safety profile

Patient discharged from hospital after 6 to 8 weeks

The voice of the physicians: Aeson® to become a first-line treatment

1 Trust Aeson®

- Efficacy
- Reliability
- Safety (no stroke/no GI bleeding)
- Easy to use

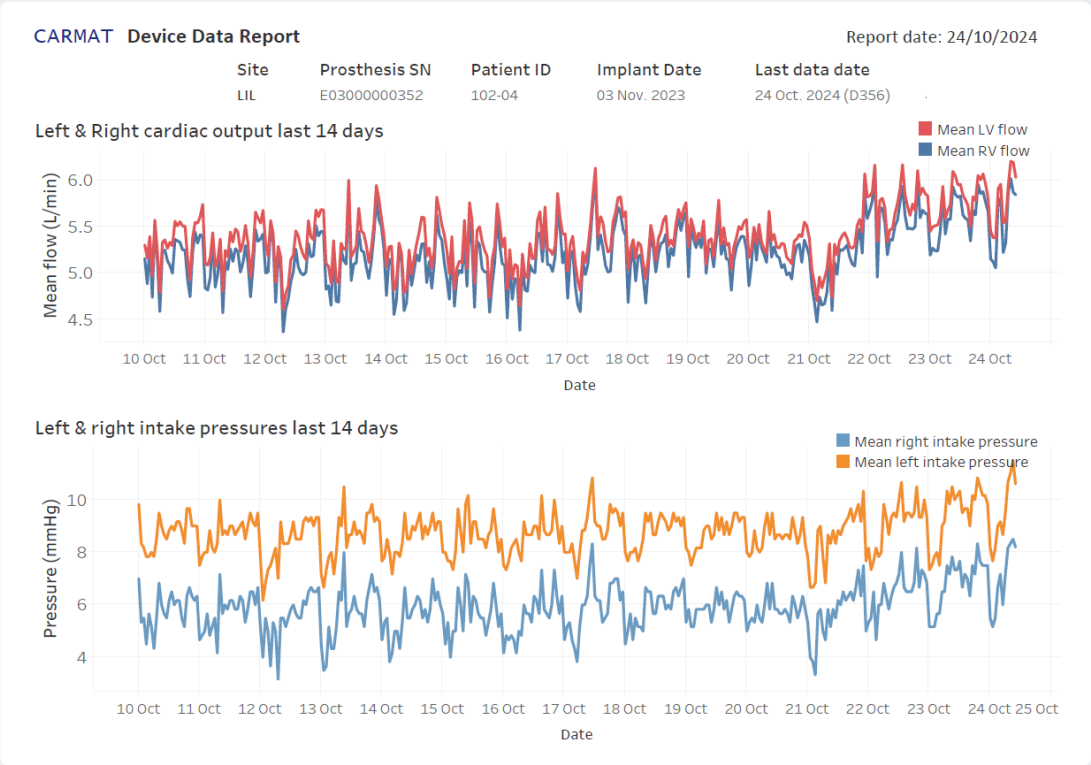
2 Select the right patients at the right time

- Aiming for maximum possible benefit for each patient

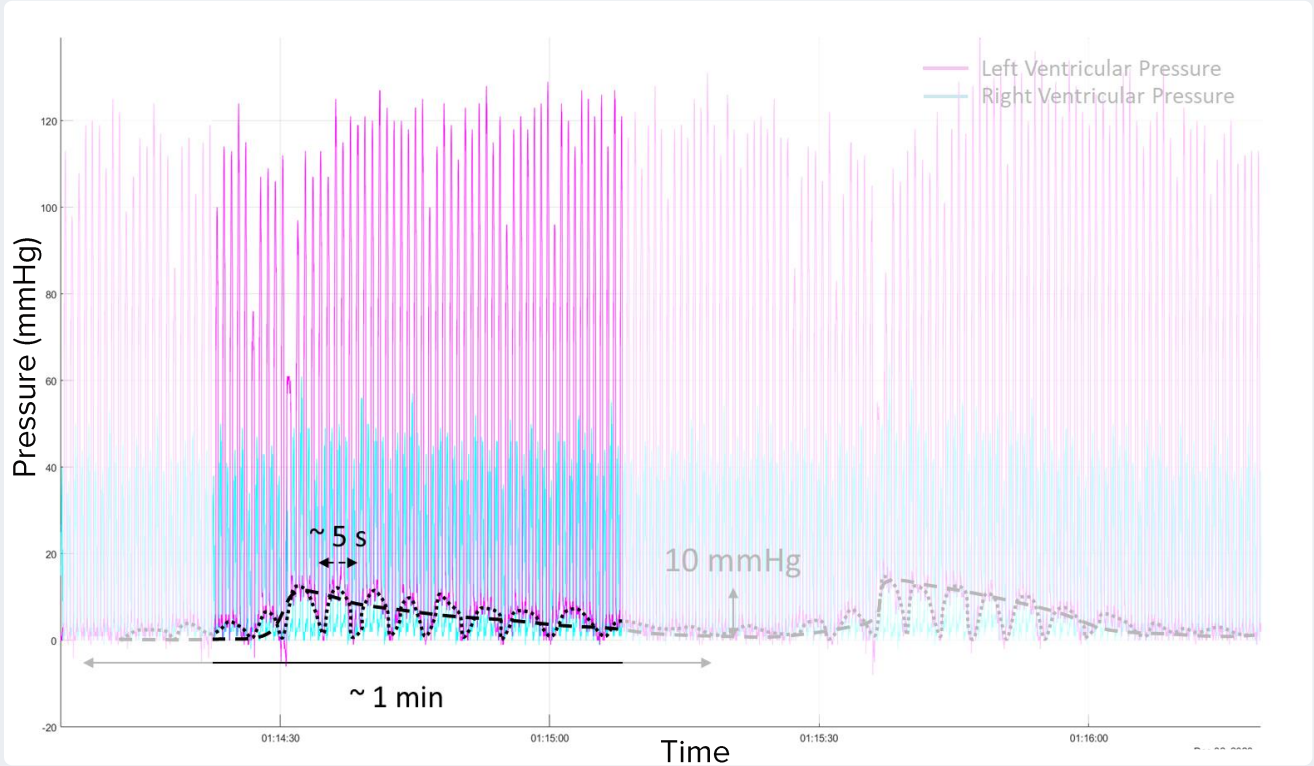
3 Integrate Aeson® into the therapeutic arsenal

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

Aeson®: a device generating billions of data



Example of dehydration detected via the device data and effect of corrective action (hydration)



Example of obstructive sleep apnea detected via device data

Data could ultimately be used to improve patients' care beyond heart-failure

Agenda

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A mature commercial organization driving early growth

All fundamentals are « live » to support strong sales development

Established Commercial & Distribution Organisation

- Established marketing and training teams
- Field team (sales force, clinical specialists) scaled to support growth
- Distribution agreements in place for 9 countries*

Best-in-class Training & Support Program

- 1-day initial training leading to hospital's certification for implants
- CT Scan ahead of each implant to check anatomical fit
- Patient selection guided by CARMAT proctors
- On-site support from CARMAT team for first 3-5 implants in each hospital

On-going Geographical Expansion

- CE Marking allowing sales across EU & other markets recognizing it
- Initial focus on Germany (largest and innovation-friendly market)
- Pragmatic and progressive geographical expansion across EMEA

Clear Pricing & Reimbursement Approach

- « One-price » policy (€205.000 per device)
- Reimbursement secured in several German landers
- Ad-hoc / Innovation fundings / Tenders in other geographies

- **50 hospitals trained for commercial implants in EMEA**
- **Implants in 26 hospitals**
- **« Reimbursement » secured for all implants**
- **Sales in 5 countries** Germany, Italy, Spain, Poland, France**

CARMAT

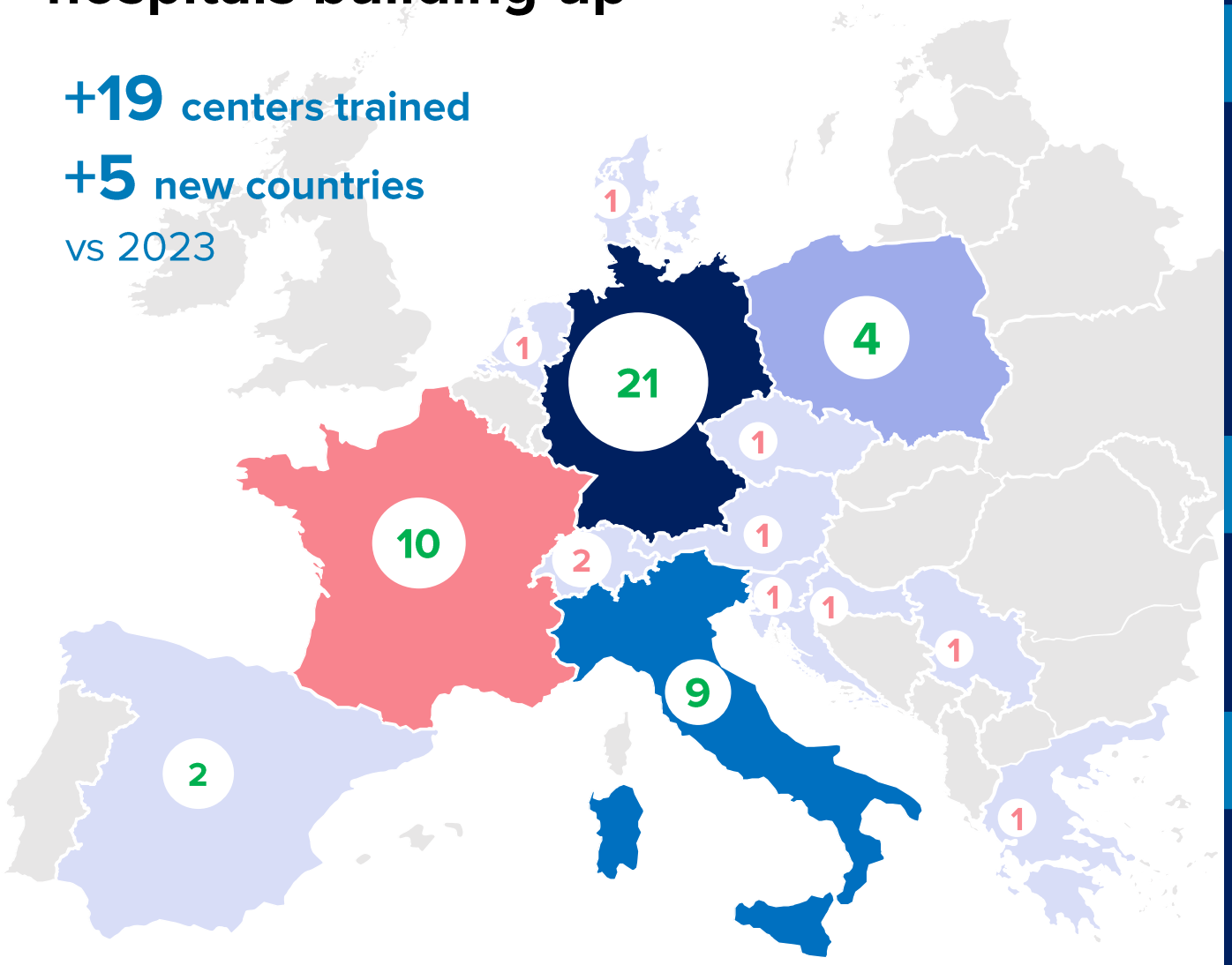
* Switzerland, Greece, Poland, Slovenia, Serbia, Croatia, Macedonia, Bosnia, Israel.
** Commercial sales in Germany, Italy, Spain and Poland; Sales in EFICAS study in France. Data as of December 31, 2024

International network of trained hospitals building-up

+19 centers trained

+5 new countries

vs 2023



50 hospitals trained for commercial implants in 16 countries

10 hospitals trained in France (EFICAS study)

Distribution agreements in place in 9 countries

Green color indicates a country where implants have already been made in a commercial set-up or in the EFICAS study (France only). Not on the map: Israël (1 center), Saudi Arabia (2 centers) and Kazakhstan (1 center). Data as of December 31, 2024

2024: positive implants dynamics & increasing level of engagement

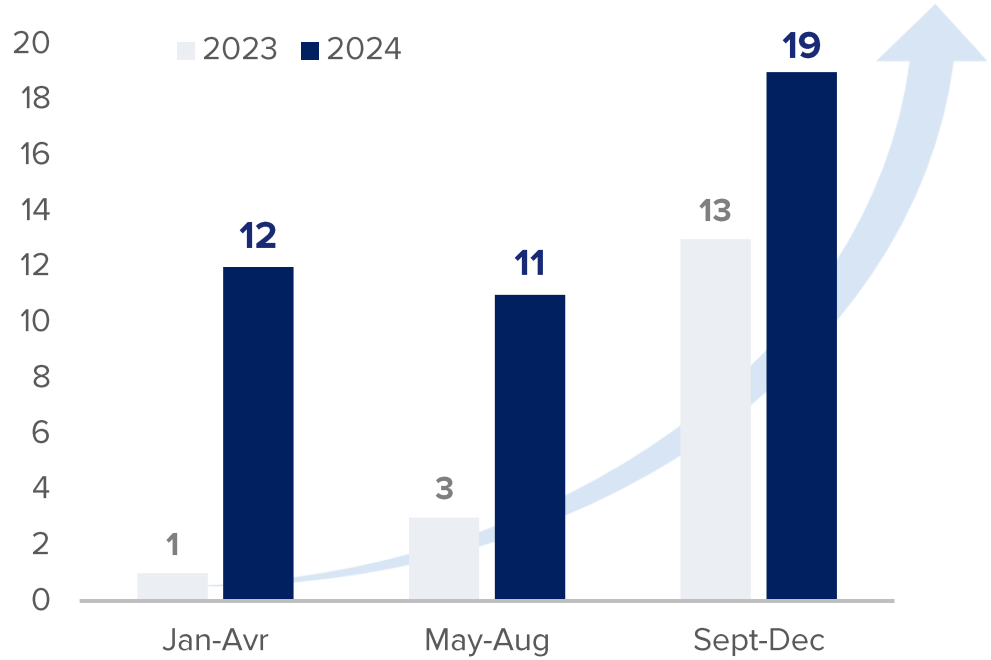
78% of trained hospitals have referred patients

26 hospitals have made implants, i.e. **43%** of trained hospitals

14 hospitals made their first implant in 2024

c. 5 implants per month over Sept. - Dec. period

c. 5 implants per month since September



42 implants in 2024 (x 2.5 vs. 2023)

Data as of December 31, 2024

Driving growth

Successful 1st Aeson® European User Meeting

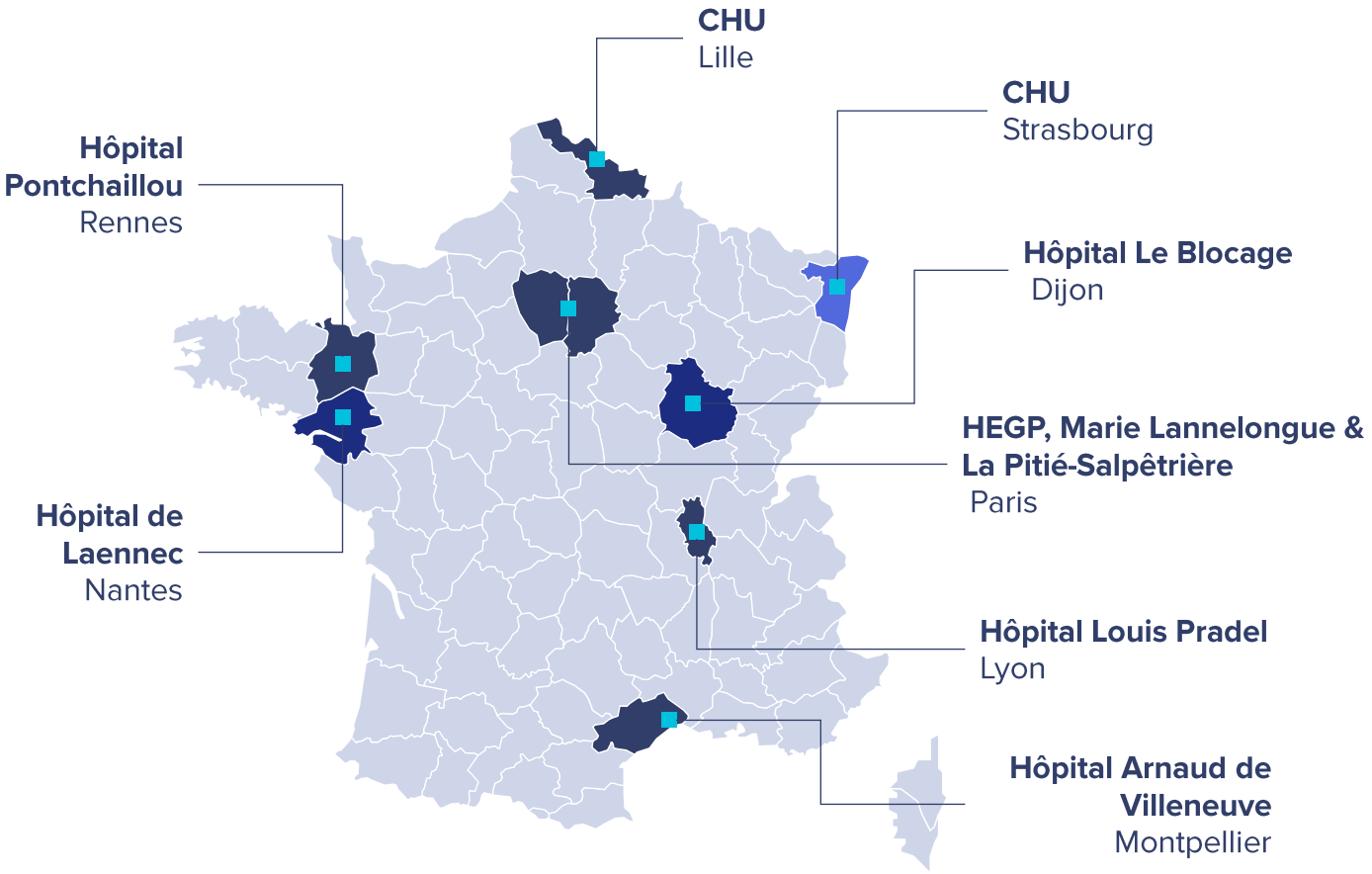
November 21 & 22, 2024

More than 100 experts from 10 countries
(surgeons, cardiologists, anesthetists, intensive care specialists, nurses, distributors…)

41 hospitals represented

2 days of experience sharing and case studies

Very good momentum in EFICAS study



70% of targeted recruitments achieved

36 patients out of 52 enrolled

Full enrollment anticipated in **H1 2025**

Convincing adoption from hospitals

9 have already made at least 1 implantation

2 have already made 7 implantations

Positive feedback from physicians

"Trying it means adopting it"

Data as of Decembre 31, 2024

EFICAS, a strategically important study for CARMAT

CLINICAL OBJECTIVES

Security and performance

Primary end-point
Aeson® support for 6 months or transplantation within 6 months, without embolic stroke

Study results expected end-2025

ECONOMIC OBJECTIVES

Value proposition, and Reimbursement in France

STRATEGIC OBJECTIVES

Therapy adoption in Europe, PMA filing in the U.S.

Delivering clinical evidence to drive sales

Delivery of sound clinical evidence to drive Aeson® adoption

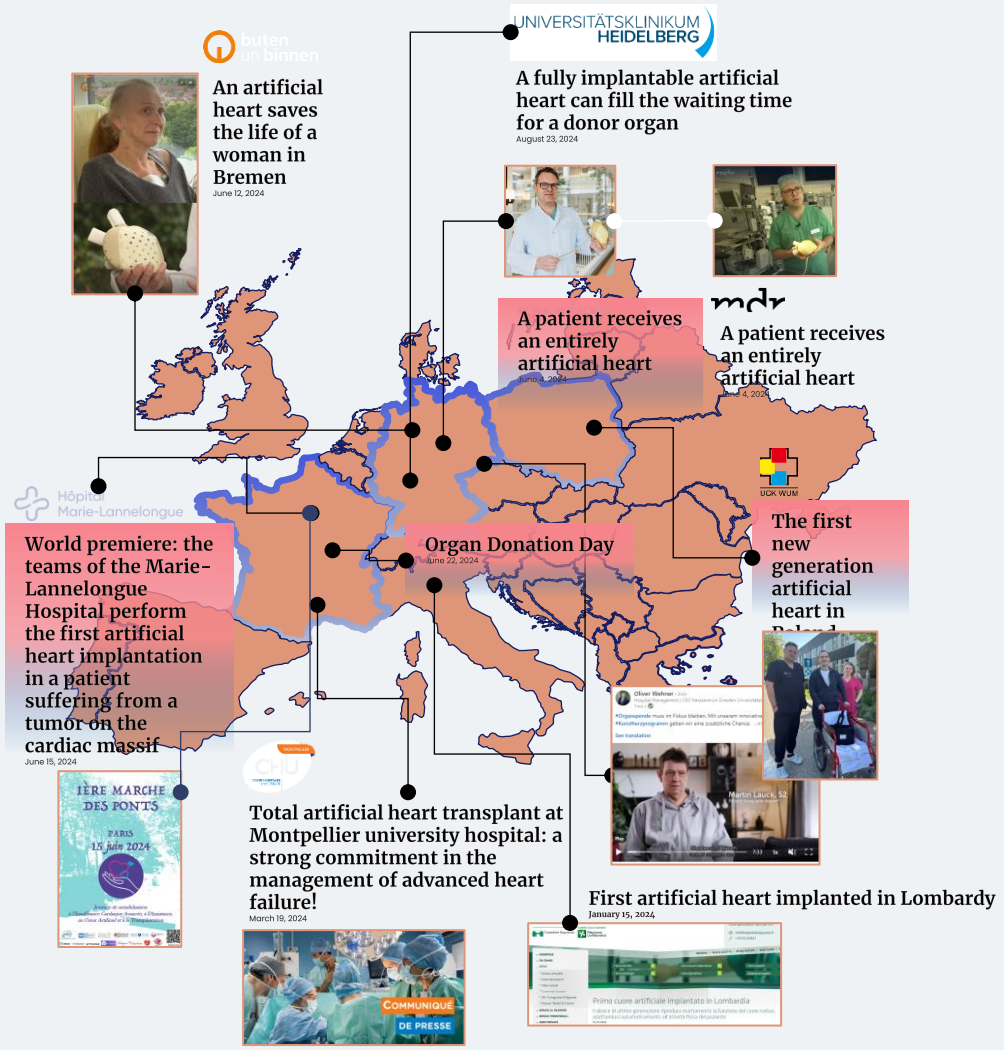
	Status	Anticipated date of publication
Patients on ECLS/ECMO prior/at Aeson® implant (10 patients)	Submitted (Dec. 2024)	February 2025
Journal of the American College of Cardiology JACC JOURNALS		
Patients with Pulmonary hypertension (3 patients)	Final review (Jan. 2025)	Q1 2025
The Journal of Heart and Lung Transplantation		
EFICAS Study results (52 patients)*	Enrollment on track (70% of patients enrolled)	End 2025

* Subject to completion of enrollment before end H1 2025

Three significant publications expected in 2025

Increasing awareness & reputation

Spontaneous communication from hospitals



CHU Dijon Bourgogne

Revolution
June 21, 2024

BFM BOURSE

CARMAT: promising interim results for Carmat's artificial heart, which takes off on the stock market
May 6, 2024

Dr. Good!

New generation prostheses
June 1, 2024

Midi Libre

Two patients live thanks to a total artificial heart after a transplant at Montpellier University Hospital
March 20, 2024

GESUNDHEIT NORD
KLINIKVERBUND BREMEN

Latest heart surgery news: patient receives fully artificial heart
May 30, 2024

Pharmaceutiques

Towards a perennial artificial heart
March 1, 2024

FT FINANCIAL TIMES

French company Carmat will produce 500 hearts per year
December 6, 2023

Agenda

I. Clinical experience

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Manufacturing set to meet demand

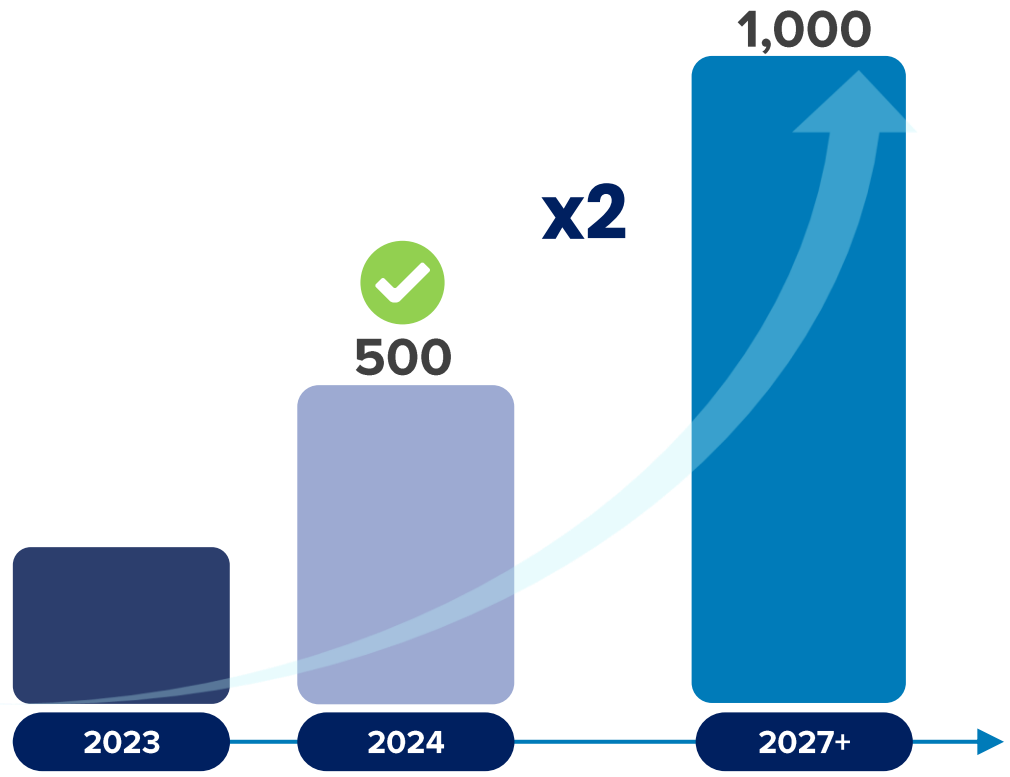
Production gradually becoming nominal

- State-of-the-art manufacturing site
- Continuous production flow in 2024
- Continuous improvement of production processes
- Further strengthening of the suppliers-base

Production capacity increased to 500 hearts / year

- 2nd production building (“BDA2”) active since end-2023
- New phase of expansion aligned with anticipated demand

Ramping up manufacturing capacity



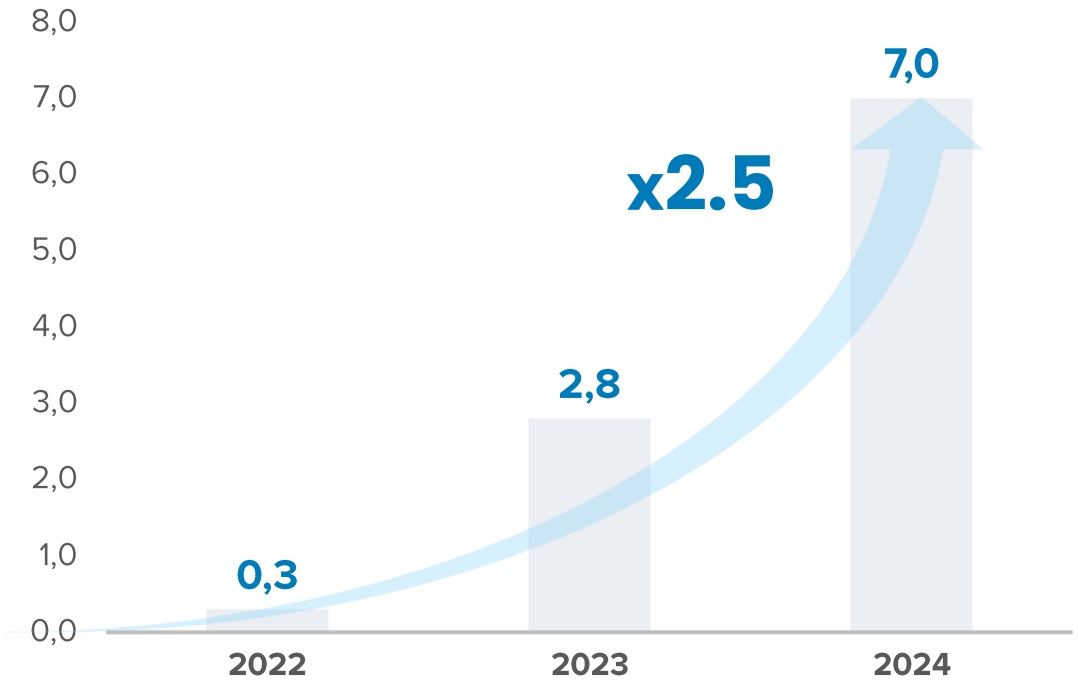
Solid sales momentum

Sales of €7.0 million in 2024

(x 2.5 vs 2023)

in France, Germany, Italy, Spain and Poland

Sales multiplied by 2.5 vs 2023



Sales expected to double again in 2025

Overall financial architecture in place, driving cash-burn and funding needs down

Sales momentum
- Sales development in EMEA
- US Launch
- DT Indication

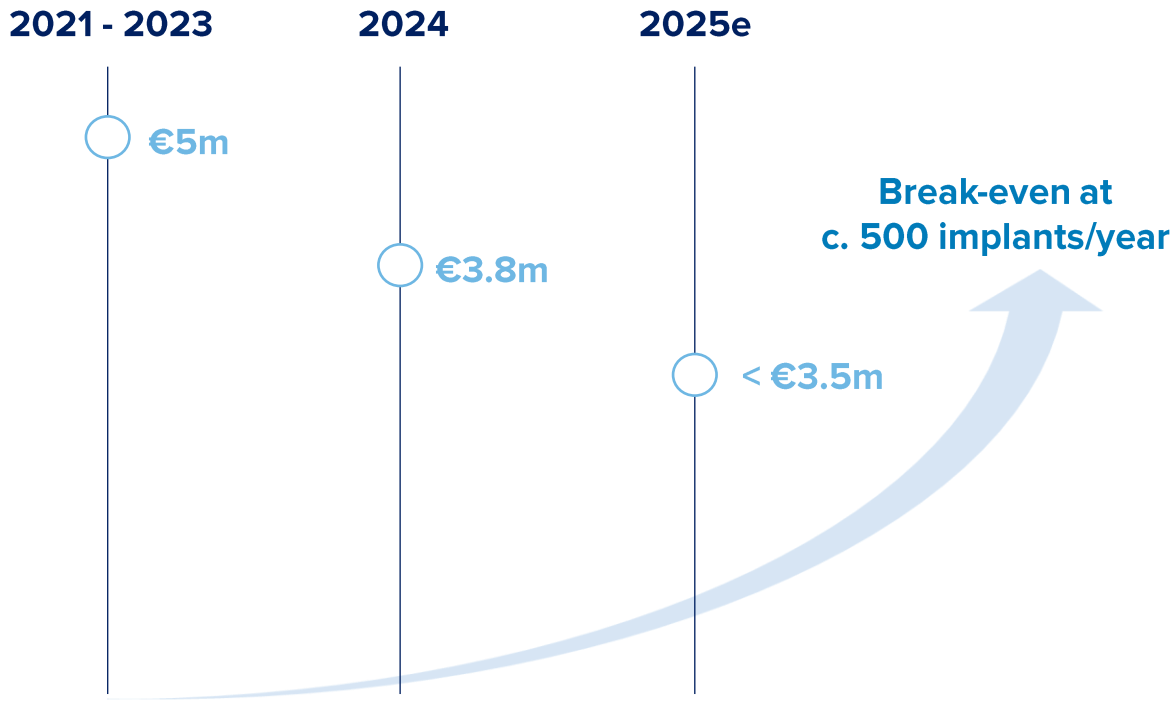
Margin enhancement
- COGS reduction roadmap
- Operational Efficiency

Working capital management
- Controlled inventory levels

Financial engineering
- Debt restructured

On our way to profitable growth

Monthly Cash-Burn Reduction*



c. 75% of CARMAT's funding journey is complete (total financing of c. €530m secured so far)

* Cash-flow from operations and investments. Unaudited number for 2024

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Clear strategy in place to fuel growth in 2025 and beyond

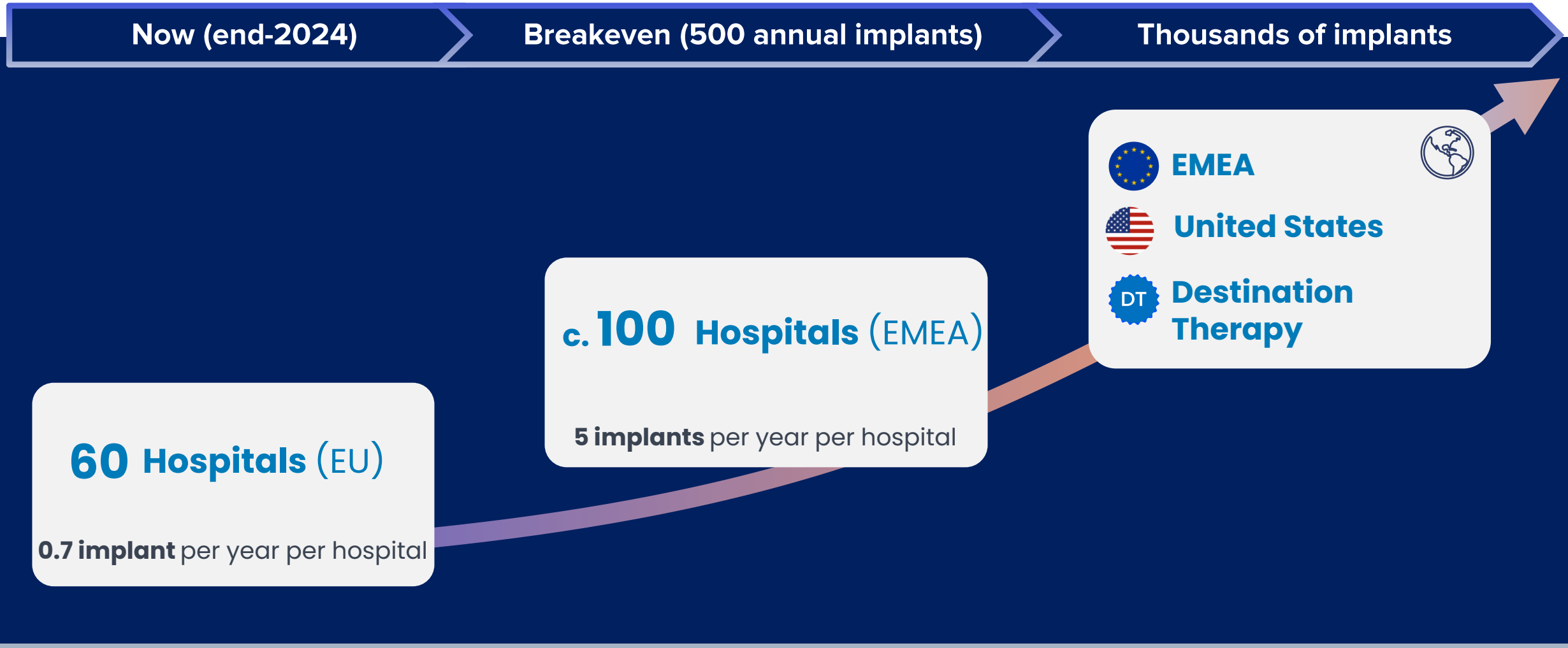
Growth Drivers	Current state	2025 - 2026	Beyond
Hospitals & Geographies	**EU** c. 20 implanting hospitals Irregular demand 4 active countries	**EMEA** 40-50 implanting hospitals Regular demand, 10+ countries	**EMEA + USA**
Data (Publications)	**Clinical Experience** Limited set of data, no publications	**Clinical Evidence** (> 3 publications)	**Aeson® in guidelines**
Reimbursement	**Mostly ad-hoc / Innovation Funding**	**Towards std reimbursement via codes** (targeted EMEA countries)	**Full Std Reimbursement in EMEA / USA**
Indications	**Bridge to Transplant** (BTT)	**Initiation of DT Study** **Bench-tests & growing real-life experience**	**Durable Use** (DT)

“Push” Commercial Approach

“Pull” Commercial Approach

Path to break-even: getting to c. 500 annual implants

Breakeven achievable with 100 trained hospitals performing on average 5 implants a year in EU / BTT indication only



Path to break-even: getting to c. 500 annual implants

Recent metrics support our growth projection

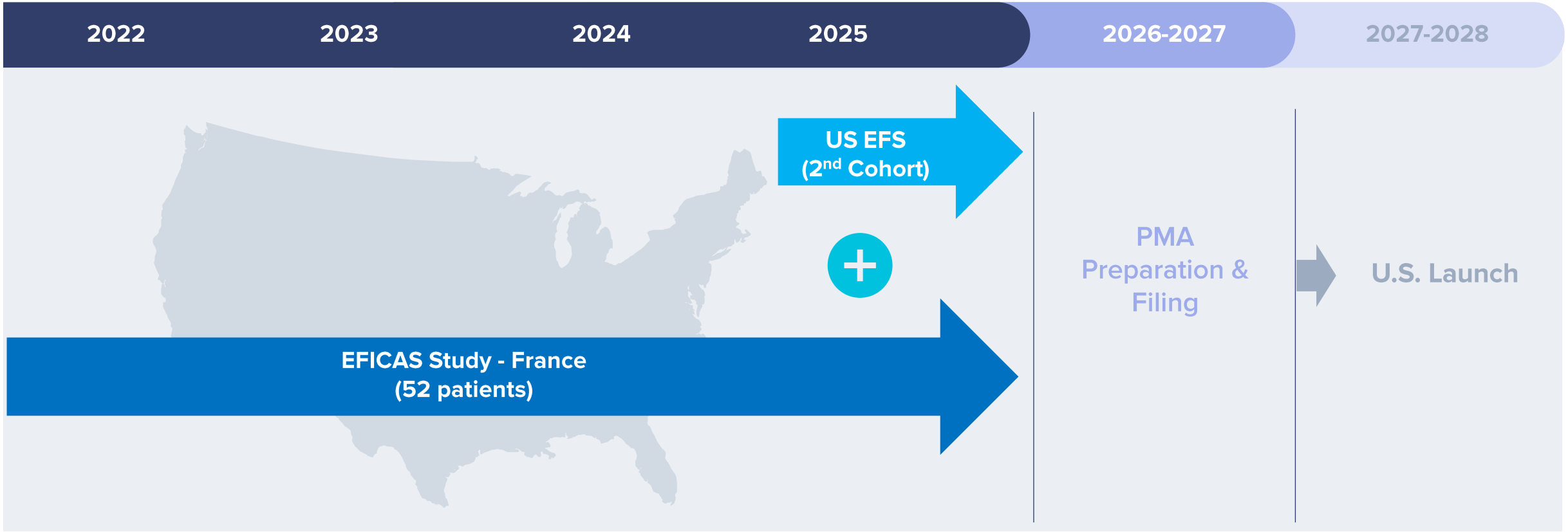
	End-2023	End-2024
Trained Hospitals	**41**	**60**
% of trained hospitals having implanted	30%	43%
% of trained hospitals with more than 1 implant	15%	27%
Highest number of implants in a hospital	**4**	**7**
Commercially active countries	France, Germany, Italy	France, Germany, Italy, Poland, Spain

Cumulated Data (covering commercial sales in EMEA and EFICAS study in France)

The 41 hospitals surveyed at the Aeson® User Meeting in November 2024 have all indicated their intent to implant Aeson® in 2025, and make more than one implant for 70% of them

U.S. launch targeted in 2027-2028

Optimized strategy for U.S. market access building on EFS study in the U.S. and EFICAS



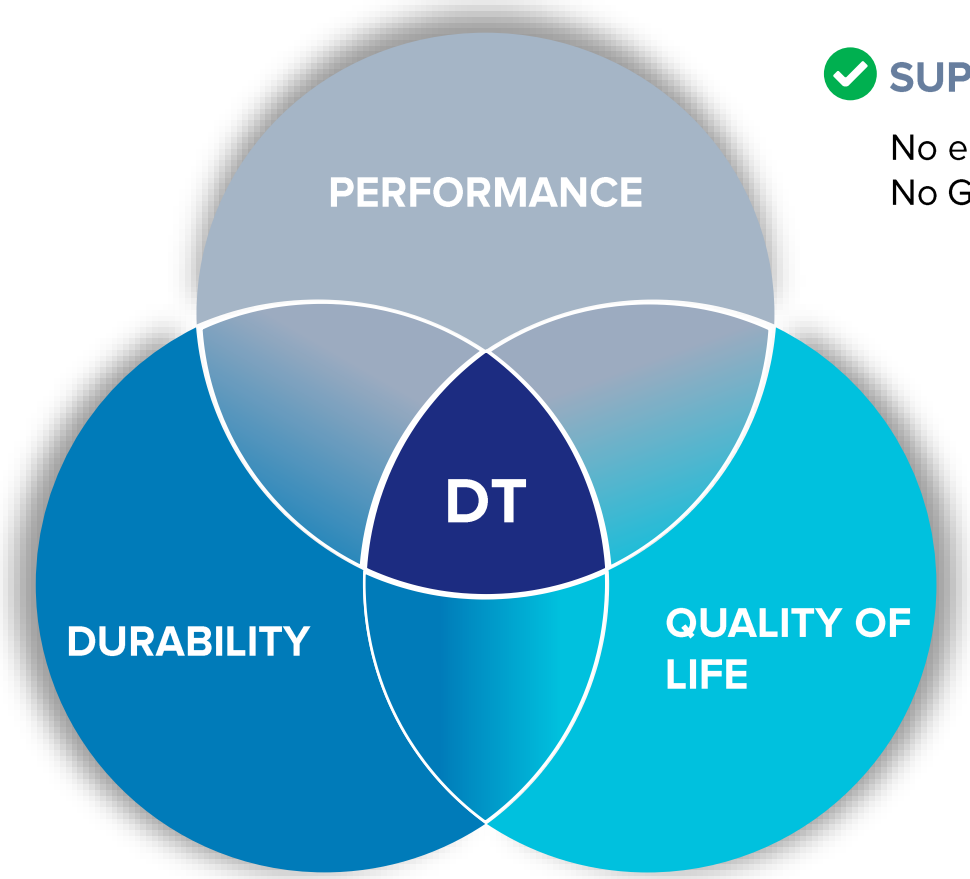
Progressing towards Destination Therapy (DT)

AESON® is the best positioned device for DT

EXTENDING AESON'S DURABILITY

Product: continuous improvement driven by real-life experience

Clinical evidence



SUPERIOR CLINICAL RESULTS

No embolic stroke
No GI bleeding

BETTER QUALITY OF LIFE

Plug & play device
Only autoregulated system
Right/left balance
Reduced drug regimen

Clear product roadmap to enhance Aeson® for permanent use
Initiation of a clinical study in H2 2025 to build clinical evidence in DT

Progressing towards Destination Therapy (DT)

Clear product roadmap paving the way for destination therapy

Current State

Proven device for bridge to transplant (BTT) indication

- > 37 years of cumulative support (> 90 patients)
- Maximum support time of 25 months
- Average support time of c. 156 days before transplant
- Software detecting most signals of possible electronic failures and self-adapting to ensure proper patient's support

Next 12 months

Enhanced device for permanent use (destination therapy)

- Focused continuous improvement informed by real-life experience and systematic analysis of explants
- Bench-tests results
- New enhanced external components and next generation of electronics

Next generation

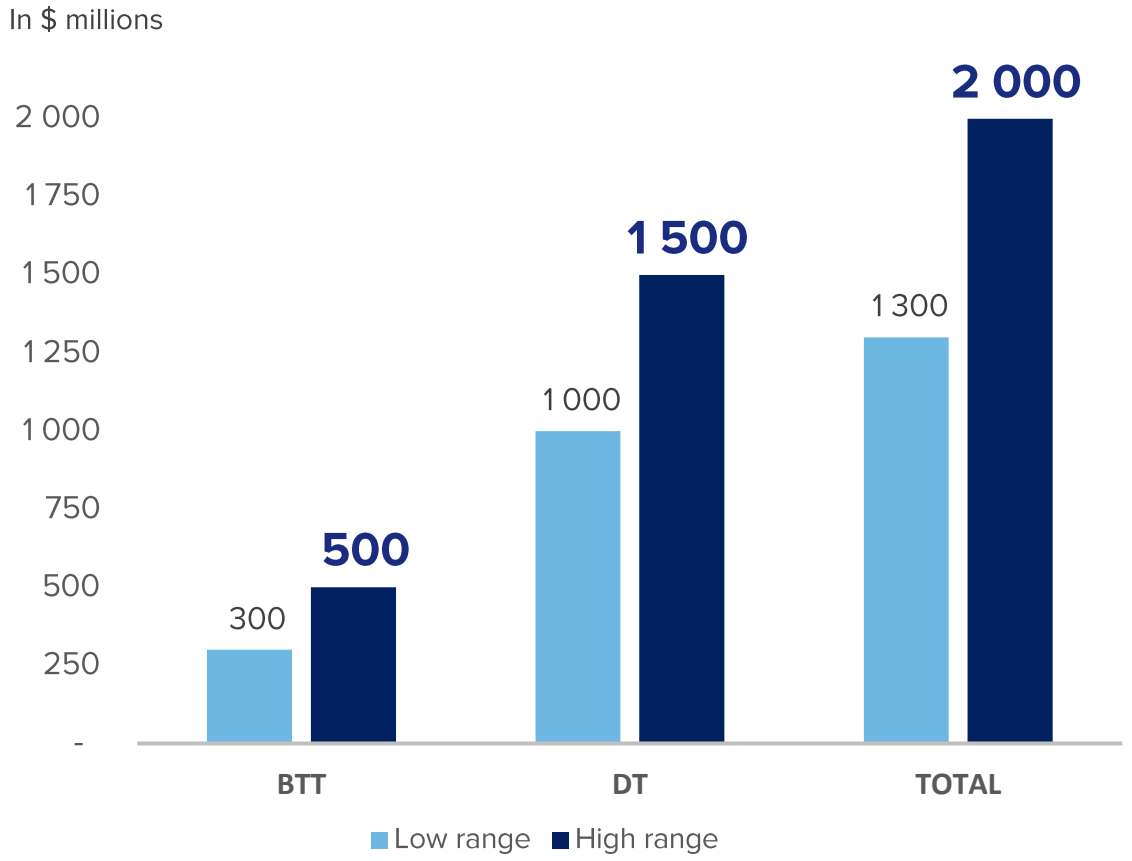
Wireless device for unparalleled patient experience

- Telemonitoring
- Wireless device (no cable)

A huge business potential

Global addressable market of $40+ bn by 2030 (BTT + DT)**

Peak sales range estimates* representing c. 5% of the addressable market



CARMAT poised to lead the heart replacement segment

* Company estimates
** https://edition.cnn.com/2021/03/25/business/carmat-artificial-heart-spc-intl/index.html (cardiovascular disease technology market)

Why invest in CARMAT now?

1. A huge total addressable market
2. A superior and unique technology
3. A fully-fledged company
4. Clear path to become the market leader
5. Significant value-creation milestones in 2025

Our ultimate objective is for Aeson® to become the 1st total artificial heart approved for Destination Therapy to address the donor organ shortage

THANK YOU

CARMAT