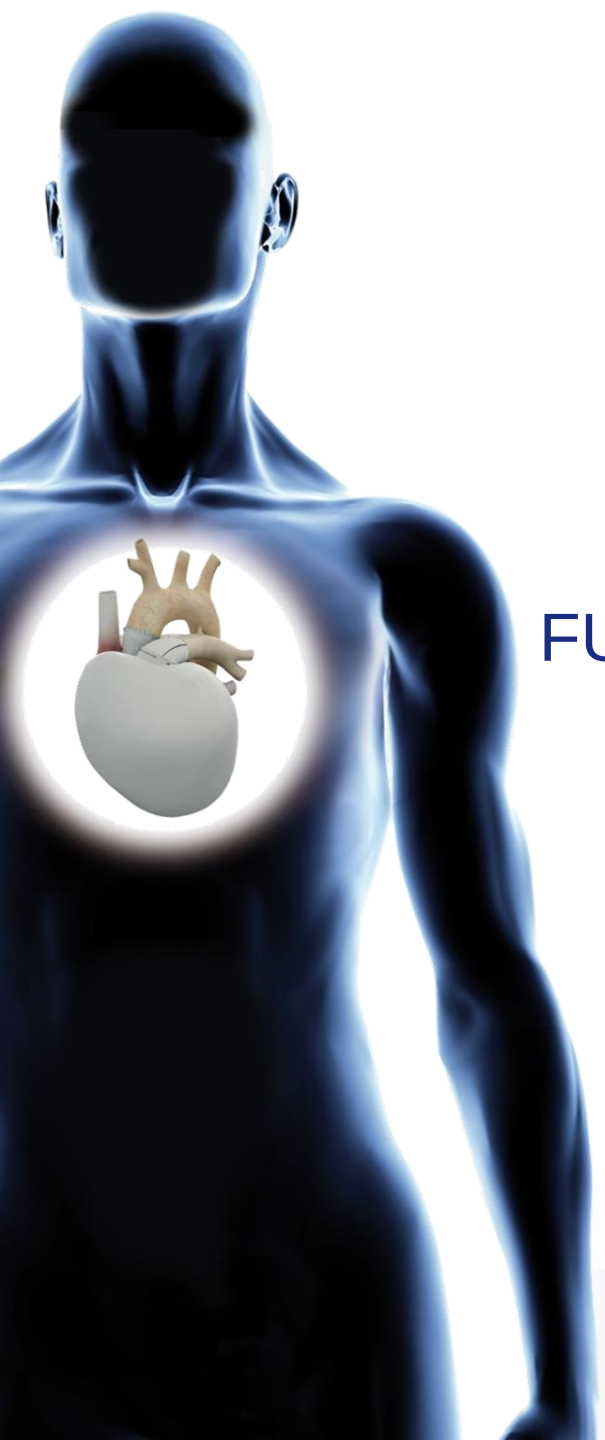

BECAUSE WE DON'T BELIEVE THE FUTURE CAN WAIT FOR THE FUTURE

Annual General Meeting

March 30, 2020

Safe Harbor

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This document contains forward-looking statements. These forward-looking statements relate to the Company's future prospects, developments and strategy and are based on analyses of earnings forecasts and estimates of amounts not yet determinable. By definition, forward-looking statements are subject to a variety of risks and uncertainties as they relate to future events and are dependent on circumstances that may or may not materialize in the future. Forward-looking statements are not a guarantee of the Company's future performance. The Company's actual financial position, results and cash flows, as well as the trends in the sector in which the Company operates may differ materially from those contained in this presentation. Furthermore, even if the Company's financial position, results, cash flows and trends in the sector in which the Company operates conform to those anticipated in the forward- looking statements contained in this presentation, such elements cannot be construed as a reliable indication of the Company's future results or developments. The Company does not undertake any obligation to update or to confirm projections or estimates or to make public any correction to any forward-looking statement in order to reflect an event or circumstance that may occur after the date of this presentation.

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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
- Johnson & Johnson Cordis (2002-2007)

Pascale d'Arbonneau
Chief Financial Officer

- Over 25-year experience in Finance
- Previously VP-Finance at GSK
- Graduate of ESCP Europe

Board of directors

Pr Alain Carpentier
Honorary Chairman

Jean-Pierre Garnier
Chairman

Karl Hennessee
Representative of Airbus Group

Stéphane Piat
CEO

Dr Philippe Pouletty
Representative of Truffle Capital

9
directors

Henri Lachmann
Independent Director

Jean-Luc Lemercier
Independent Director

Dr Antonino Ligresti
Representative of Santé Holding SRL
Independent Director

Pierre Bastid
Independent Director

Dr Michael Mack
Independent Director

Diversified and complementary board

3 nationalities

5 independent directors

2 international experts in cardiology

Agenda

I. Bureau constitution

II. Progress made by CARMAT in 2019

III. Strategy and outlook

IV. 2019 Financial report

V. Statutory auditors' reports

VI. Simplified agenda

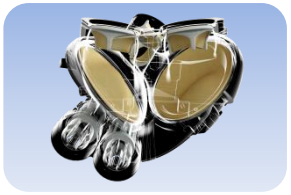
VII. Questions & answers

VIII. Voting on resolutions

I. Bureau constitution

Bureau constitution

- Appointment of the President of the meeting
- Designation of the Secretary of the meeting
- Quorum
  - Number of shares with voting rights: 12,605,720
  - Shareholders present, represented by proxy or voting by mail: 6,284,570 shares; i.e. 7,384,936 votes
  - Quorum of 49.855%

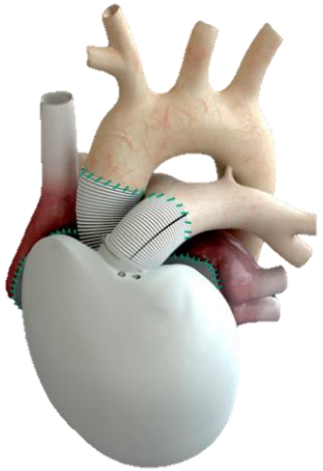


II. Progress made by CARMAT in 2019

A breakthrough innovation to treat end-stage heart failure

Vision

- A **physiological artificial heart**:
  a real alternative to heart transplant
- Make the implantation of this heart a **routine surgical procedure**
- Conquering a **global market**



CARMAT, the most advanced artificial heart in the world

CARMAT

Advanced Heart Failure

6 000 heart transplants a year

Only covering **3%** of the total needs

Between **60** and **94%** death rate within a year

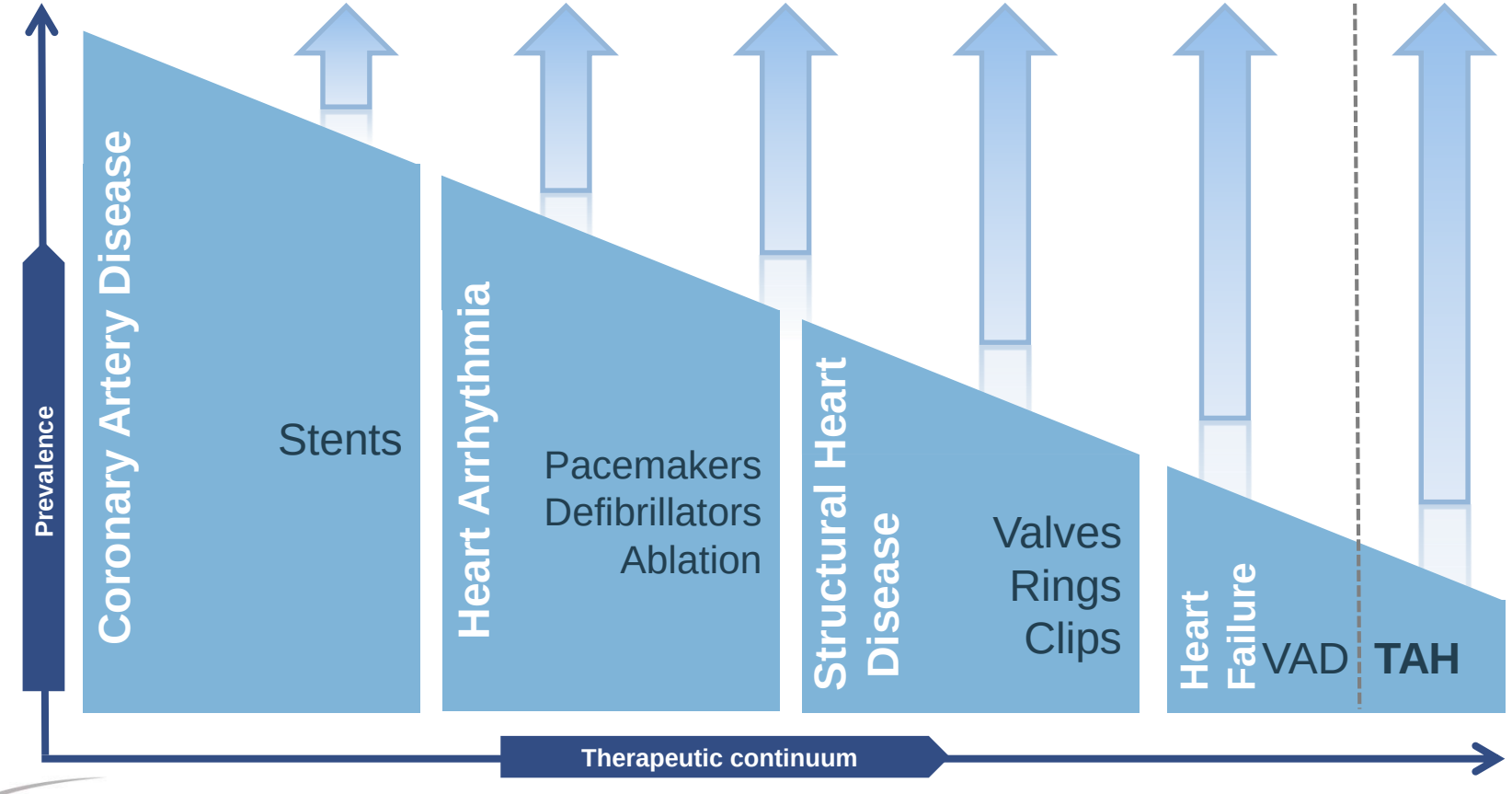
CARMAT

Total Artificial Heart a sizeable opportunity in Cardiology for Medtech companies

MAJOR PLAYERS IN CARDIOLOGY

Abbott · Boston Scientific · Edwards · Johnson & Johnson · Medtronic

CARMAT



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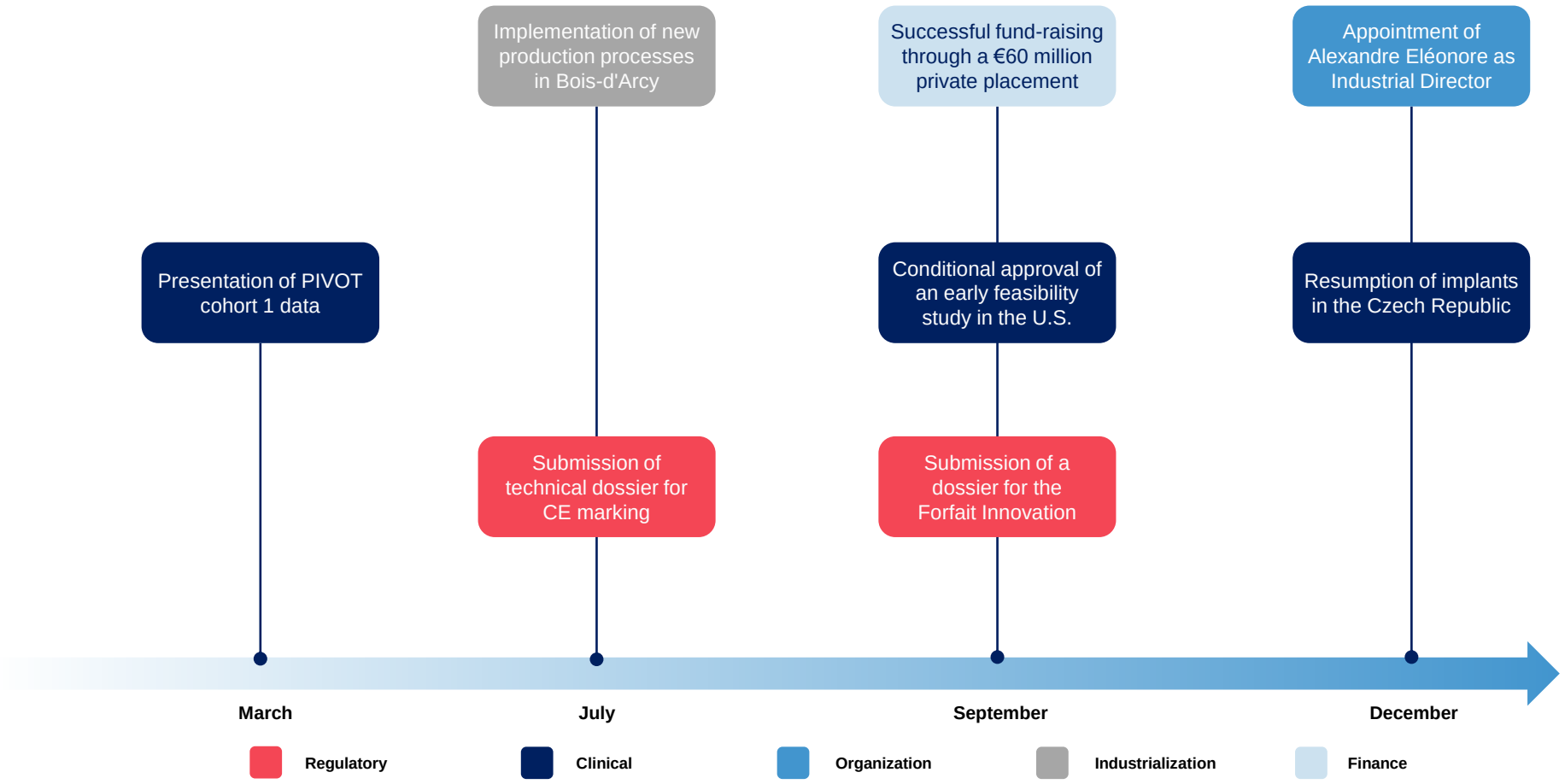
CARMAT program

Available technology	LVAD/BIVAD/TAH* displaying numerous limitations
Need for a reliable new-generation solution	Adapts to the patient physiology through an autoregulation system and improved hemocompatibility to provide a better quality of life
Objective of the clinical program	Validate these hypotheses

* LVAD: Left Ventricular Assist Device; BIVAD: Bi-ventricular Assist Device; TAH: Total Artificial Heart

2019: a structuring year



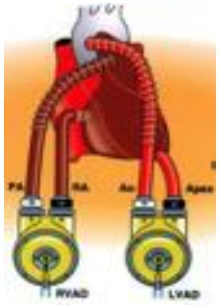
Major progress in the CE marking process,
as evidenced by the submission of the technical dossier

Ongoing PIVOTAL study

- Enrollment completed for the first part of the study (10 patients)
- 2 patients of the second part of the study enrolled
- Enrollment objective: **20 patients** in total
- Primary endpoint of the study: **6 months** survival

Results from the first 11 patients of the PIVOTAL study

- 6-month survival rate among the first 11 patients: 73%
- Improvement expected with the second patient cohort as a result of the experience gained



	Taux de survie à 6 mois
CARMAT FIM	50%
CARMAT PIVOT (partie 1)	**73%**
SynCardia*	54% - 62%
BIVAD**	46% - 68%
LVAD***	90% - 92%

* Kirklin JK et al, J Heart Lung Transplant 2018;37:685-691. Arabia F et al, J Heart Lung Transplant, 2018;37:1304–1312
** Lavee J et al, J Heart Lung Transplant 2018;37:1399−1402. Arabia F et al, Ann Thorac Surg 2018;105:548–56
*** Strueber M et all. J Am Coll Cardiol 2011;57:1375–82. Netuka I et al, J Am Coll Cardiol 2015;66:2579–89

CARMAT

Confirmation of the good safety profile

- Positive 6-month safety profile in 11 patients compared to other therapies

Adverse events	Stroke	Bleeding – surgical repair	Gastrointestinal bleeding	Percutaneous cable infection
CARMAT FIM	0%	75%	0%	0%
CARMAT PIVOTAL (part 1)	**0%**	**27%**	**0%**	**0%**
SynCardia*	23%	41%	20%	22%
BIVAD**	7%	n/a	7%	7%
LVAD***	8%	14%	8%	10%

- No hemolysis

* Arabia F et al, J Heart Lung Transplant, 2018;37:1304–1312. Demondion P et al, Eur J Cardiothorac Surg. 2013 Nov;44(5):843-8.
** Lavee J et al, J Heart Lung Transplant 2018;37:1399−1402
*** Netuka I et al, J Am Coll Cardiol 2015;66:2579–89

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Optimization of the surgical experience

- 100% success rate for the procedure
- Length of surgery shortened with the benefit of experience
- Heart transplantation is possible following the CARMAT implantation:
  - **5/5 successfully completed**

Overview of the clinical experience to date

- **Operation**
  - Recovery times comparable to the norm for high-risk patients
  - Physiological autoregulation of the prosthesis, adapting to the activity of the patient
- **Favorable safety profile**
  - No hemolysis, no stroke, no digestive system bleeding in the first cohort
- **Follow-up**
  - 6-month survival rate among the first 11 patients: 73%
  - Bridge to heart transplant successfully performed

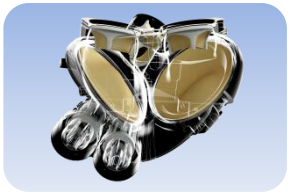
Durability

To date:

- **Achievement of 25 months of individual support in the PIVOTAL study**
- **35-month bench-testing achieved with a prosthesis produced for Cohort 1 of the PIVOTAL study**

Data accumulated over time show the potential of the CARMAT heart to be used as a destination therapy

CARMAT



III. Strategy and outlook

Upcoming developments

- Continuous improvement of production processes in Bois-d'Arcy
- Completion of the PIVOTAL study
- Start of the EFFICAS study in France within the “Forfait Innovation” Framework
- Start the implants within the framework of the Early Feasibility Study (EFS) in the U.S.
- Prepare the company for commercialization

All the strategic projects are progressing well

Manufacturing

- Increased reliability of prostheses following the implementation of new manufacturing processes
- Control of the processes allowing a better fluidity of the production and ramp-up
- Focus on suppliers to ensure production continuity

Processes are in place to support clinical and commercial demand

PIVOTAL study

- 12 patients enrolled to date
- Extremely encouraging data
- Estimated time to complete the recruitment is 4 - 5 months

EFFICAS study

- Forfait Innovation filed in Q4 2019
- Favourable HAS opinion received in February 2020
- Budget negotiations to be initiated shortly

Opportunity to launch a broader study with collection of medico-economic data in France exclusively

EFS in the U.S.

Next steps:

- Reimbursement discussions with CMS (Centers for Medicare & Medicaid Services)
- Get approvals from Ethics Committees (2/7)
- Sign study contracts with selected centers
- Patient selection

Objective is to treat a first patient in the 4th quarter 2020

Commercialization

CE marking	▪ Few outstanding questions on the technical dossier ▪ Robust clinical file with 12 patients
Marketing	▪ Mapping work carried out in Germany ▪ Preparation of the "promotional" strategy in progress

Objective: to be operational for a launch in 2021

CARMAT

Impact of the Covid-19 epidemic on CARMAT

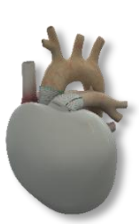
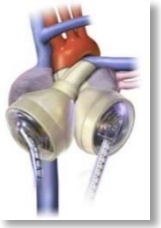
Manufacturing	▪ No impact for the moment
PIVOTAL study	▪ No access to hospitals (3 patients on hold)
EFFICAS study	▪ No expected impact on discussion time with HAS
EFS	▪ No impact expected on discussion times with FDA, CMS and hospitals
Commercialization	▪ Ongoing discussions with DEKRA

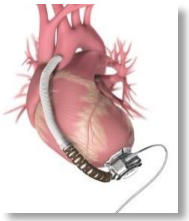
Limited impact on timing if the pandemic is resolved by the end of Q2 2020

CARMAT, a unique and eagerly awaited solution

4 essential requirements to provide physiological support without complications*:

- Biventricular support
- Pulsatility
- Self-regulation
- High biocompatibility

	CARMAT TAH	Syncardia TAH	BVAD	LVAD + pRVAD	LVAD
Biventricular support	✓	✓	✓	✓	✗
Pulsatility	✓	✓	✗	✗	✗
Self-regulation	✓	✗	✗	✗	✗
High biocompatibility	✓	✗	✗	✗	✗

- **The only system to offer real physiological support**

** Rogers JC et al. N Engl J Med 2017; Money L et al. ASAIO J 2020; Lai JV et al. ASAIO J 2020 Mehra M. Eur Heart J 2017; Murase S et al. J Heart Lung Transpl 2020*

CARMAT

IV. Financial report 2019

Simplified P&L

In €m	2019	2018
Operating income	0.7	0.7
Operating expenses	(43.1)	(43.5)
Operating Result	**(42.4)**	**(42.8)**
Financial Result	(1.8)	(0.9)
Pre-Tax Result on Recurring Activities	**(44.2)**	**(43.7)**
Exceptional items	(0.1)	-
Research tax credit	1.6	2.0
Net Result	**(42.6)**	**(41.7)**

- **Prosthesis not yet marketed – no sales in 2019**
- **Operating expenses under control in a context of intensifying the European market access strategy:**
  1. Continuation of the CE marking process
  2. FDA approval to start a feasibility study in the United States
  3. Ensure the reliability of the production processes and preparation for the ramping up at the Bois-d'Arcy plant
  4. Continuation of the transformation of CARMAT into an industrial and commercial company
- **Increase in financial interests – EIB loan drawdown impact**
- **€1.6m research tax credit**

Simplified Balance Sheet

In €m	31.12.19	31.12.18
Fixed Assets	5.6	6.1
Trade receivables	3.6	5.4
Cash and cash equivalents	**55.5**	**25.3**
Total ASSETS	**64.7**	**36.8**
Shareholders' Equity	24.5	7.5
Other Shareholders' Equity	14.5	13.1
Provision for Risks & Charges	0.7	1.0
Liabilities:	25.0	15.3
- Financial debt	16.4	4.7
- Trade liabilities	8.6	10.6
Total LIABILITIES	**64.7**	**36.8**

- **€55m in cash as of December 31, 2019**

Strengthened cash position

Change in cash	In €m
Cash as of 31.12.18	**25.3**
Financing cash flow	71.1
Operating cash flow	(40.3)
Investing cash flow	(0.6)
Cash as of 31.12.19	**55.5**

- **Capital increase: +€60m**
- **EIB loan first tranche drawdown: +€10m**
- **Bpifrance last tranche repayable advance received: +€1.5m**
- **Other: -€0.4m**

Solid cash position of €55m as of 31.12.2019

Available financings

Cash as of 31.12.2019	**€55m** ✓	
EIB loan | Tranche 2	**€10m**	**Non dilutive financing: drawdown subject to technical milestones**
EIB loan | Tranche 3	**€10m**	
Flexible equity financing line (Kepler)	**€22m**	**Exercisable according to needs / market conditions until end-September 2020**

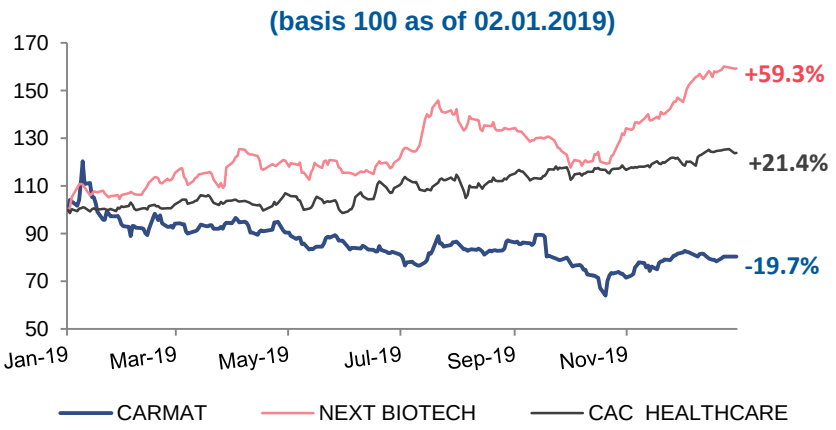
CARMAT has visibility up to Q3 2021 which allows completion of its clinical developments and the preparation of the commercial phase

CARMAT and the stock market

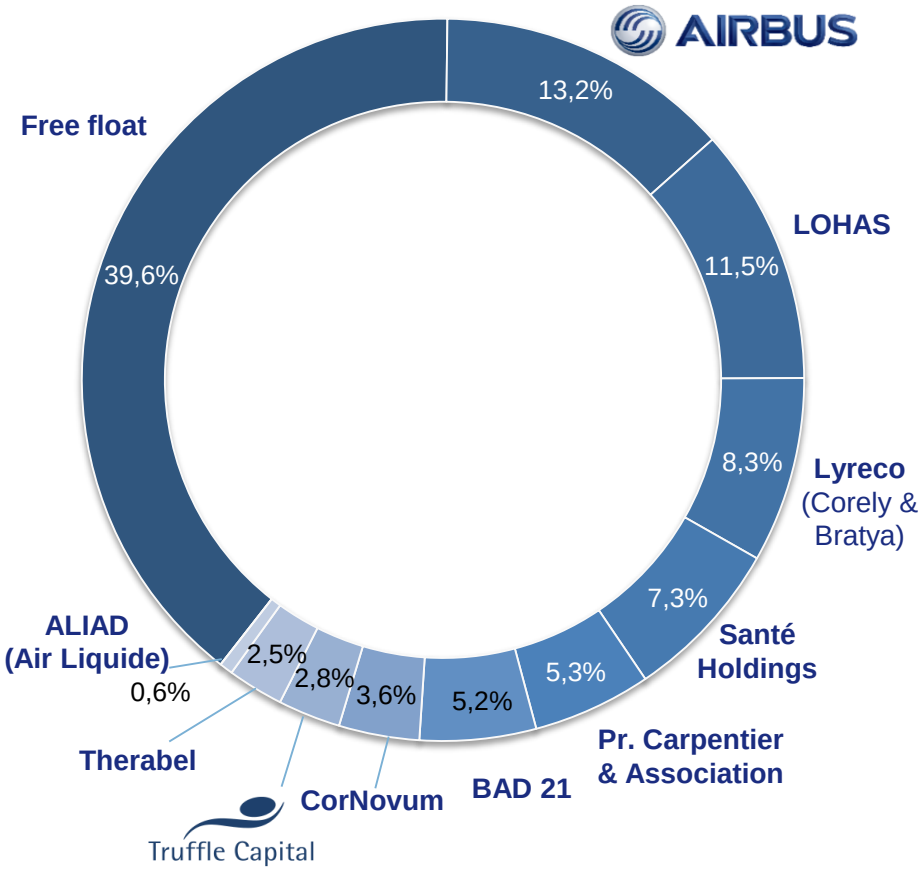
Listing information as of 31.12.2019

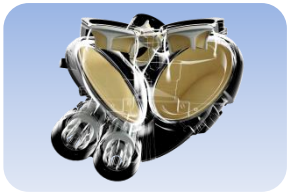
- **Ticker:** ALCAR
- **ISIN Code:** FR0010907956
- **Industry:** Health equipment and services
- **Share price:** €19.28
- **Number of shares:** 12,609,649
- **Market cap.:** €243.1m

Change in CARMAT share price vs. sector indexes in 2019



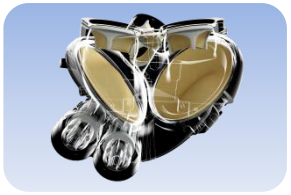
Shareholding structure as of 31.12.2019





V. Lecture of the Statutory Auditor's reports

M. Thierry Charron (PWC)



VI. Simplified agenda

Ordinary agenda

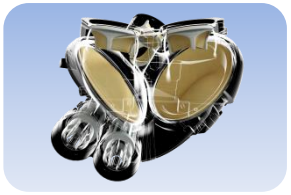
- On an ordinary basis, shareholders are invited to vote on the usual resolutions related to the day-to-day management of the company, in particular:

  - **approval** of the corporate accounts, discharge of the directors for their management and allocation of the results for the financial year 2019
  - **review** of regulated agreements
  - **opinion** on the elements of executive compensation for the 2019 financial year
  - **authorization** of the share buyback program
  - **appointment** of a new director

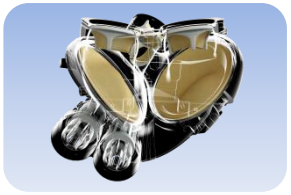
Extraordinary agenda

- On an extraordinary basis, shareholders are invited to vote on the usual resolutions related to changes in share capital, in particular:

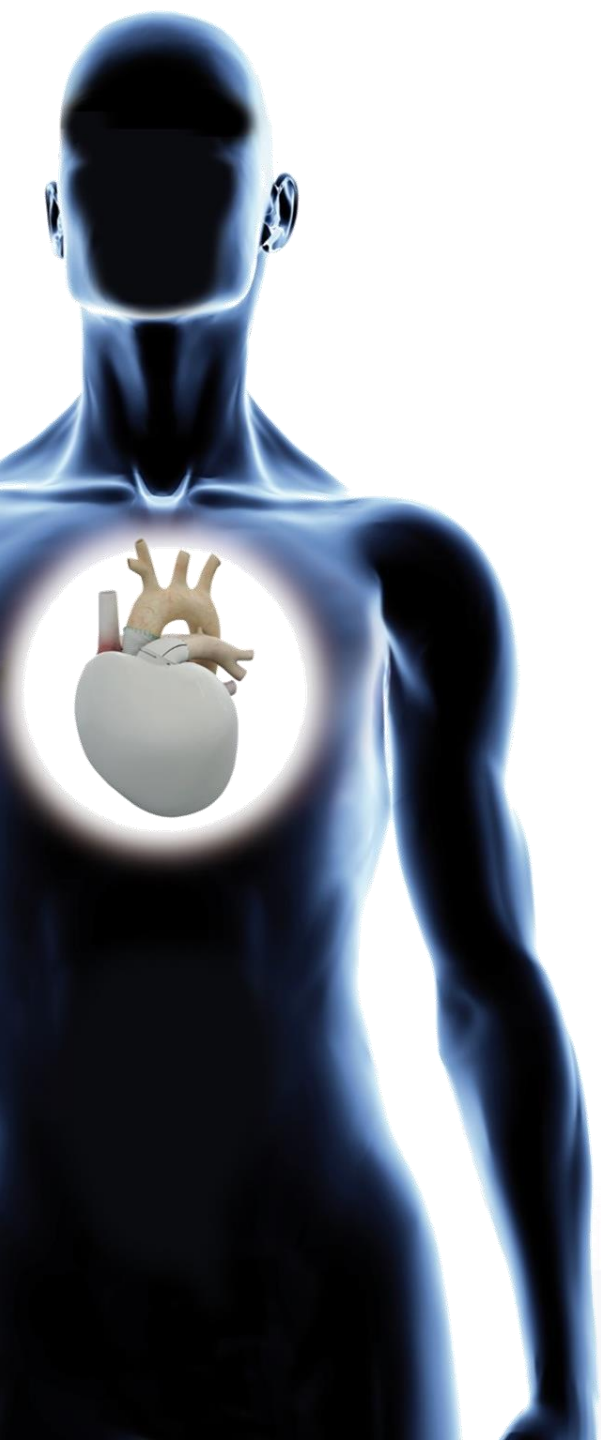
  - **authorization** to reduce the share capital by cancelling treasury shares
  - **capital increases** by issuing ordinary shares and / or all securities
  - **setting** of the total amount of financial delegations linked to capital increases
  - **authorization** to grant options to subscribe or purchase shares in the Company
  - **amendment** of the articles of association with a view to the Company and the introduction of two new categories of preference shares convertible into ordinary shares (AGAP)
  - **implementation** of a new AGAP 2020 plan



VII. Questions & answers



VIII. Voting on resolutions



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Thank you for your attention!