

RELEVANT FACT
CARBURES EUROPE, S.A.
6 of February of 2018

In accordance with Article 17 of the Regulation (EU) n° 596/2014 about market abuse and Article 228 of refunded text 228 of Stock Market Law, approved by the Royal Legislative Decree 4/2015, of October 23, and concordant provisions, as well as in Circular 15/2016 of Alternative Stock Market (MAB), we provide the following information:

On the occasion of the participation of CARBURES in the Frankfurt European Midcap Event, the corporate presentation to be used is attached.

El Puerto de Santa María, 6th February of 2018.

CARBURES EUROPE, S.A.
Guillermo Medina Ors
Non-executive Secretary of the Board



CARBURES EUROPE



Investor Presentation

CF&B Frankfurt Midcap Conference

February 6, 2018

Section I.	Company Overview
Section II.	Market Overview
Section III.	Key Investment Highlights
Section IV.	Financial Highlights
Section V.	Appendix: Business Units Detailed Overview

Introduction

With over 18 years of experience, Carbures is a listed, sponsor-backed Spanish industrial group specialized in the engineering and manufacturing of carbon fiber composites for top Tier 1 suppliers and OEMs in multiple sectors



3

Attractive growing sectors
Aerospace, Mobility & Civil Works



82 M€

LTM Revenues H1 2017



>900

people, with >50% in R&D and Engineering



16

plants and engineering offices in which we operate globally



7

Countries in which we are present

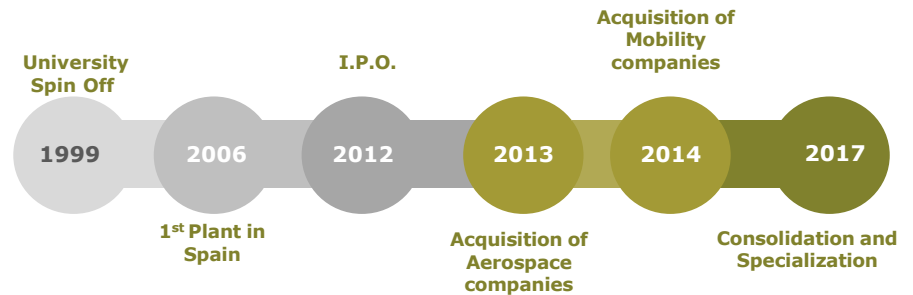


42,000 m²

of our production plants, technical offices and installations

Success Story...a consolidated company with an attractive project

...from being a **university spin-off** to becoming an **international company** with presence in **3 continents**



Trading Profile ⁽¹⁾

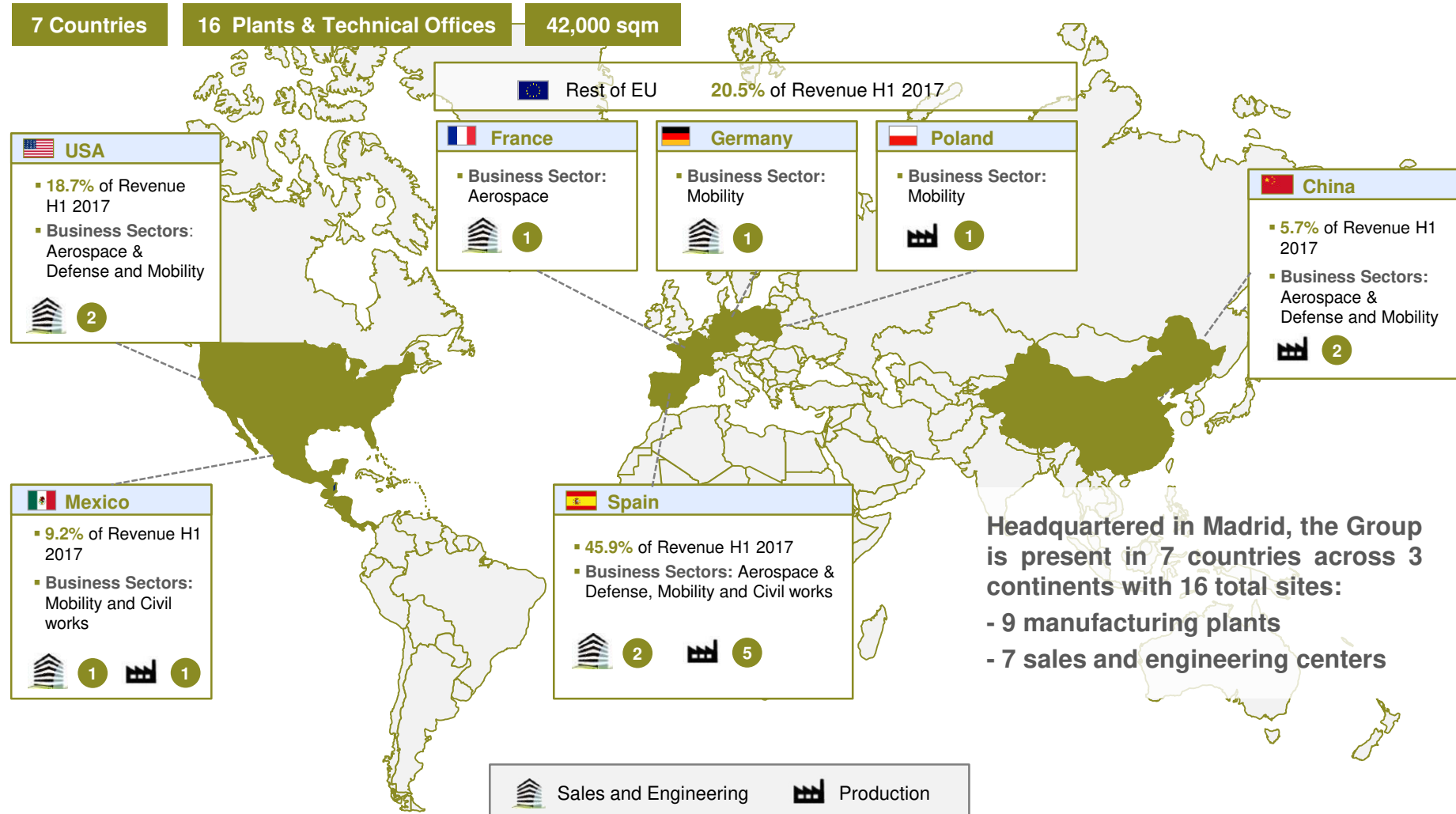
Carbures expects to have its shares listed on the Madrid Stock Exchange Market in 2018

Current Exchange:	MAB – Madrid
Ticker:	CAR
Price change 2018 YTD:	+8.3%
Price Range 2017-2018:	€0.45 - €0.81
Current Market Cap :	107.8 M€
Avg. Traded Vol. Last Year:	~384,000 shares
Current EV:	168.0 M€
IPO Date:	2012

(1) As of January 29, 2018

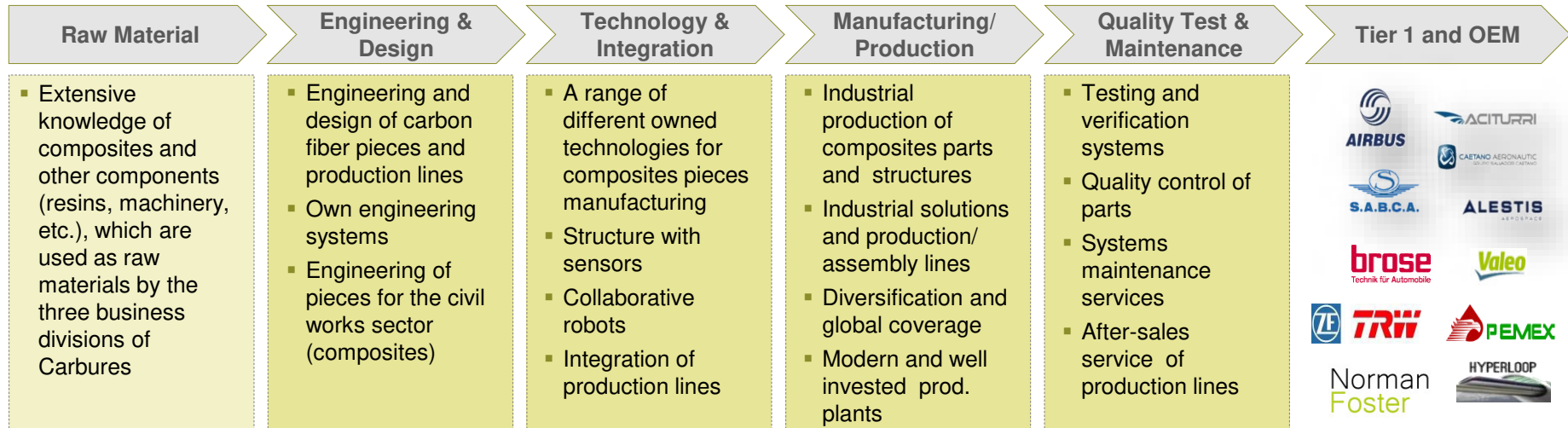
Geographical Presence

Carbures' extensive international presence and industrial capacity is unique for a Tier 2 supplier, allowing them to closely serve their OEM and Tier 1 clients across multiple locations



Business Model

In its 3 business divisions, Carbures operates across the entire value chain, engaging in all activities from product/part design to production and quality control; enabling it to retain and develop in-house capabilities and ensure quality



Engineering, Design and Technology

- Tier 2 supplier of composite materials, engineering and manufacturing.
- Global strategy in the supply chain: Proximity to clients, with offices in three important markets (China, USA and Europe).
- High technical capacity and ability to provide high value-added services. The Company has important quality certifications.
- Collaboration with the clients from early stages of product development.
- The Company has substantial experience in the development of structures, equipment and manufacturing technologies.

Production and Value Added Services

- Short and long series production.
- Track record of excellence in the industrialization and production of composites parts and structures for the aerospace and mobility sectors.
- Quality, competitiveness and impeccable record of timely deliveries.
- Highest standards and quality certifications in its plants, that have been verified by its clients.

First Class Clients

- High order visibility.
- Extensive backlog and pipeline.
- Leaders in their sectors.
- High recurrence.
- Excellent credit ratings.
- Worldwide recognition.

Business Units Overview

To better serve the distinct segments Carbures operates in and similar to the internal organization of leading industrial groups, the Company is organized in three business divisions and enjoys high operational optimization

52 % Aerospace & Defense

The division is specialized in the engineering and manufacturing of carbon fiber composite structures parts for aircrafts. It is a major Tier 2 supplier to Airbus and its Tier 1 suppliers. It is currently developing new clients such as Boeing, Embraer, COMAC, AVIC, etc.

PARTS MANUFACTURING

ENGINEERING & SYST.

Main Clients:



Highlights:

1. **Consolidated business** with **growth expectations** thanks to the recurrence of long-term programs, which provide **visibility** throughout the whole life of aircraft models
2. **International industrial capacity** with **4 production plants** and focus on the future area of growth: the Asian market
3. **>18 years** with **Airbus** as a customer, and working to incorporate **other prime OEM** into the client portfolio, which is a lever for **exponential growth**

46 % Mobility

The mobility division consists of three branches: automotive, engineering and machinery. The first develops and manufactures carbon fiber composite vehicle structure parts, while the latter supplies Testing machinery & Assembly lines⁽¹⁾ to leading Tier 2 automotive players.

PARTS MANUFACTURING

MACHINERY

Main Clients:



Highlights:

1. **Stability, visibility** and **sustainable growth** in the Machinery business, combined with **huge growth potential** in parts manufacturing
2. **Worldwide reference** in the automotive **Machinery** industry thanks to the ad hoc solution offering to its customers
3. **5 production plants** in key locations and own patent "RMCP" for the manufacture of parts in carbon fiber and other composite materials

2 % Civil Works

The division has a strong historical track record in industrial and infrastructure engineering projects (Oli & Gas, Maritime, Electric Energy, etc.). Since its incorporation in the Group in 2014, it has been engaged in developing the industrial application of carbon fiber technology.

OFF-SHORE PLATAFORMS, SINGULAR PROJECTS AND ENGINEERING SERVICES

Main Clients:

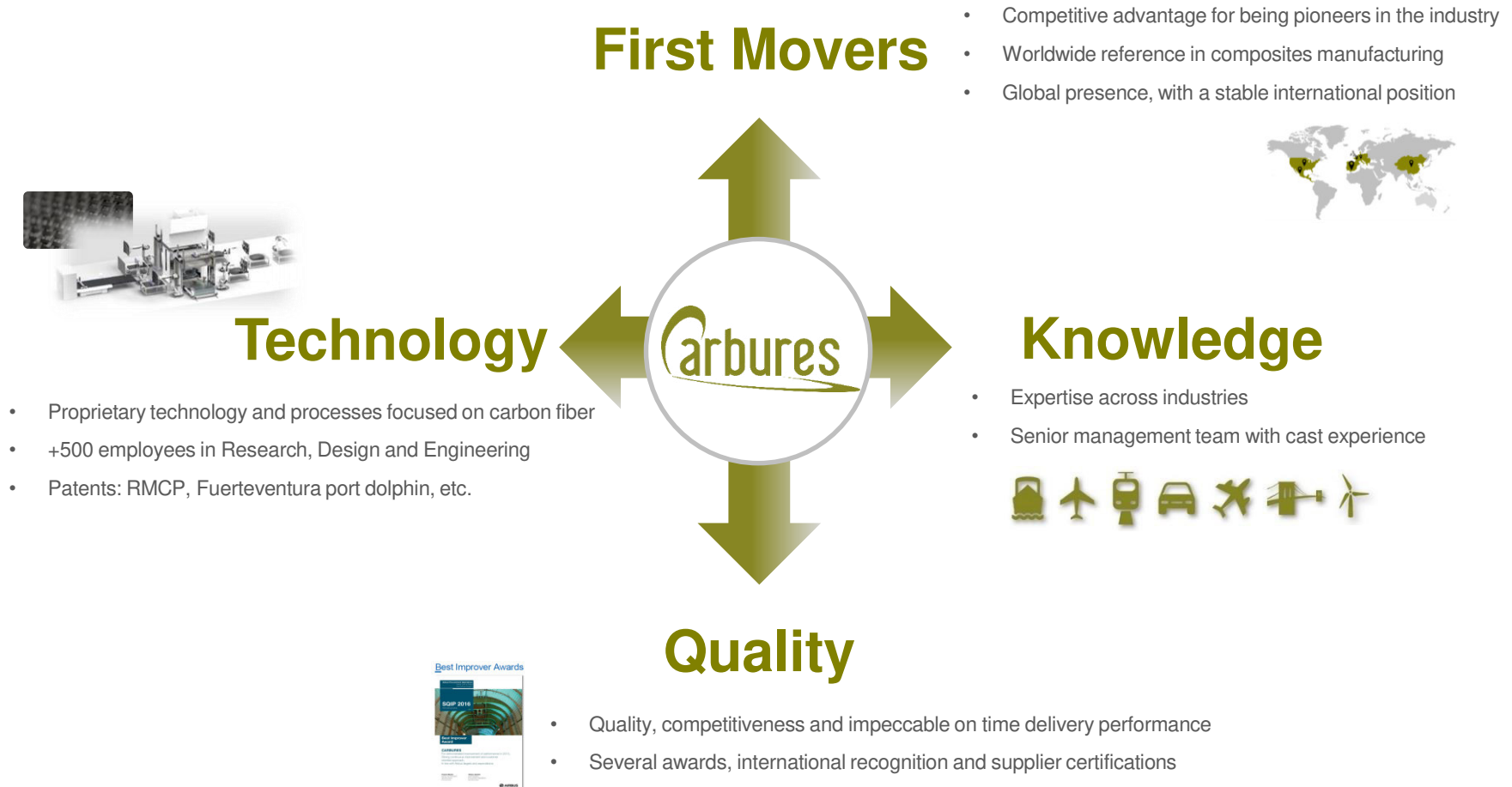


Highlights:

1. **Huge growth potential** as a result of the new strategic positioning on large **EPC** and **PMO** projects
2. **Significantly increasing business** and profitability with **new** and existing **customers**
3. **Additional growth levers: piping** and industrialization of **corrugated bars** for infrastructures

Competitive Advantages

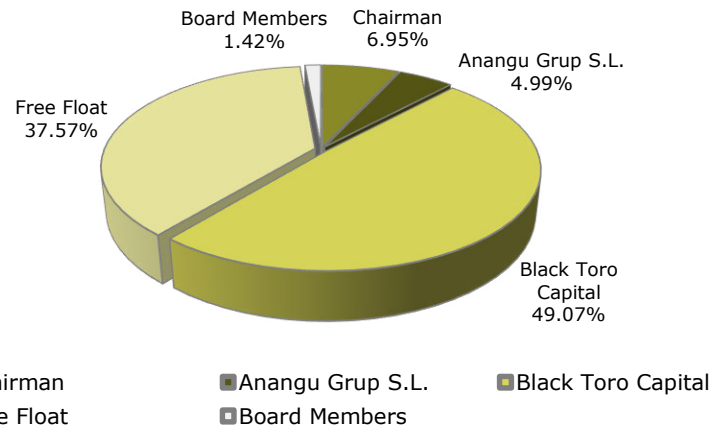
Leadership vocation, industry knowledge, cutting-edge technology, global presence and high quality of the offering are clear competitive advantages and growth drivers for Carbures



Capital Structure and Key Management

Having successfully organized the business, Carbures' highly experienced management team is actively pursuing new growth and business expansion opportunities and has the full backing of its founders and major shareholders

Equity Capital Shareholding Structure⁽¹⁾



- Black Toro Capital is a Spanish private equity firm with an investment strategy focused on the stabilization and growth of mid-market companies.
- Rafael Contreras is the founder of Carbures and currently the Group's Executive Chairman. He has over 18 years of experience in creating companies in different sectors and across various continents.
- Anangu is the holding vehicle of the well established Catalan family.
- Several Board Members of the Company hold minority interests in the Company.
- The Company holds c.3.5 million shares of treasury stock as a control mechanism ~2%

Key Management



Rafael Contreras – Exec. Chairman & Founder

- Founder of Carbures in 1999.
- PhD. B.S. in Social Sciences and Law, BsC in Business Administration. Executive education at Harvard, Columbia & MIT
- 17 years of experience creating and managing companies with a technological profile



Borja Martínez-Laredo – CEO and Board Member

- CEO since May 2017.
- B.S. in Economics and Business Administration. EMBA from IE Business School.
- 20 years of experience working in UBS and Capital at Work.



Javier Moreno – Head of Aerospace & Defense

- Joined in 1999 and has headed A&D division since 2015.
- Chief Engineer of the EADS DR initiative during 1998-2000, where he focused on special materials.
- Specialized in industrial application of specialty materials.



Imad Ghawaly – Head of Mobility

- Head of Mobility since 2016.
- 22 years of experience in the automotive sector.
- Previously worked as senior managers in Johnson Control, Voith, Brose, among others.



Raúl García – Head of Civil Works

- Joined Carbures in 1999.
- Engineer with more than 36 years of experience, previously managed engineering projects in Pypsa for industrial plants and other Civil Works uses.

(1): Data as of December 31, 2017.

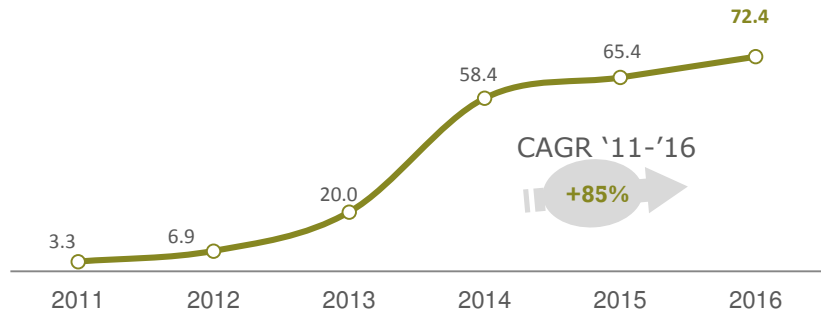
Financial Snapshot

Growth based on our technology and business strength. Current phase focused on profitable growth: improvement of operating results after the implementation of efficiency and restructuring plans

Revenues

(€ in Millions)

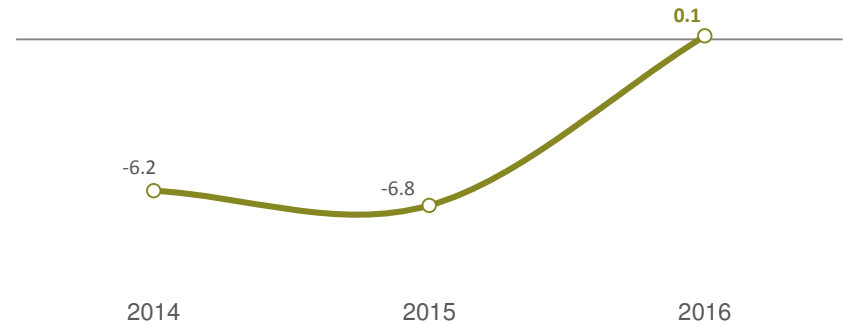
Accelerating the revenue growth



EBITDA

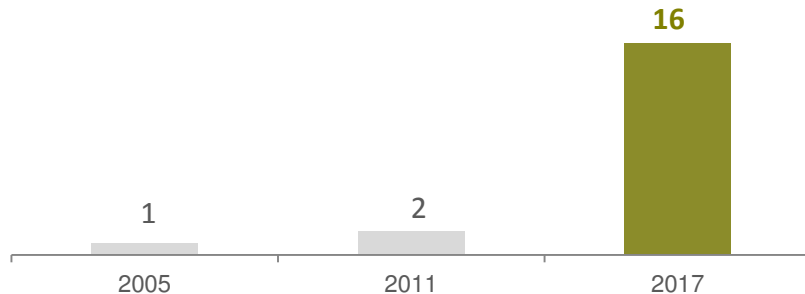
(€ in Millions)

Turning point in 2016, with positive EBITDA

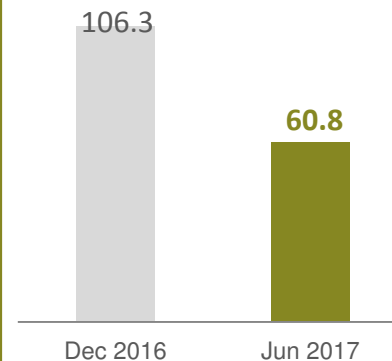


Industrial Capacity Evolution

Increase in production plants and engineering offices to meet the growing market demand



Net Debt

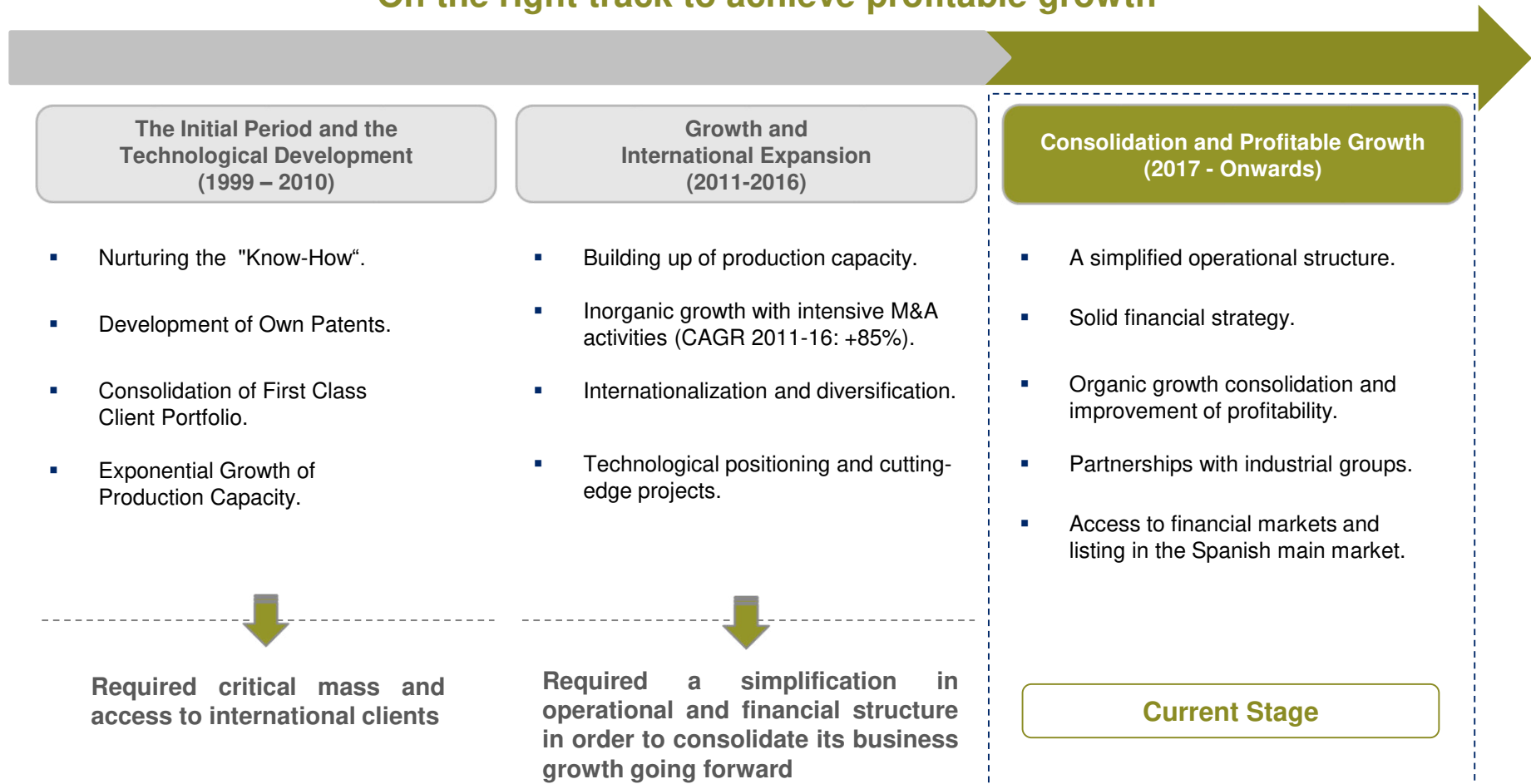


- Significant reduction of net debt
- Only ~20 M€ of gross banking debt with financial institutions
- Extending maturities successfully on the long-term

New Industrial Reality

The Company is following its roadmap to generate organic growth and to achieve an optimum degree of demand for its installed production capacity

On the right track to achieve profitable growth



Section I. Company Overview

Section II. Market Overview

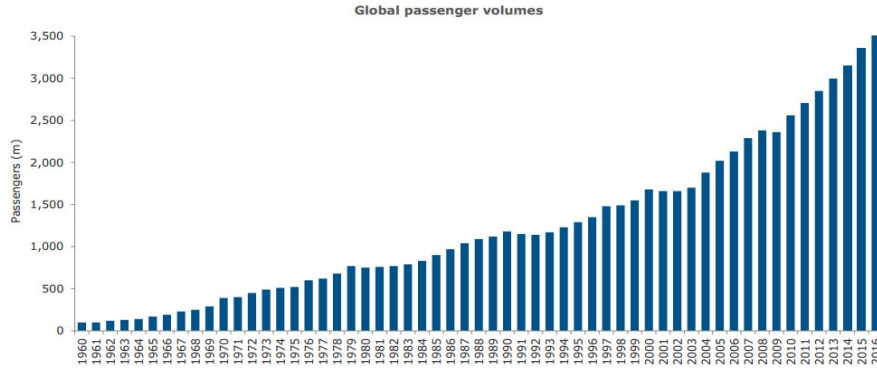
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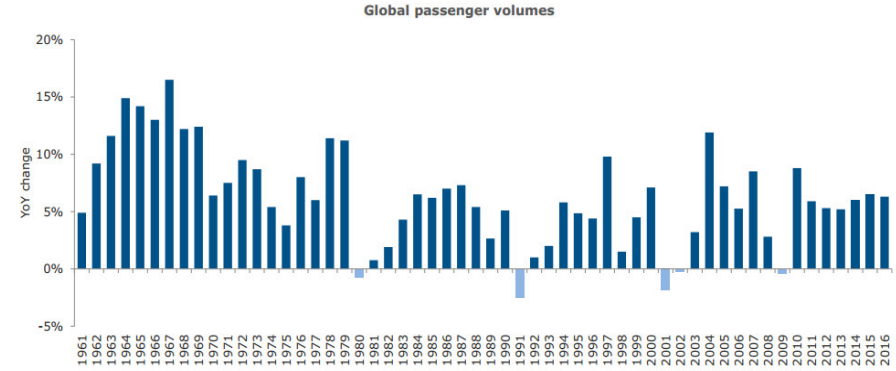
Air traffic is a secular growth market that rarely decreases. Constant growth in air traffic with expectations to double in the next 15 years. According to the CEO of United Technologies, more than 80% of global population has not flown

Air Transport is a Secular Growth Market



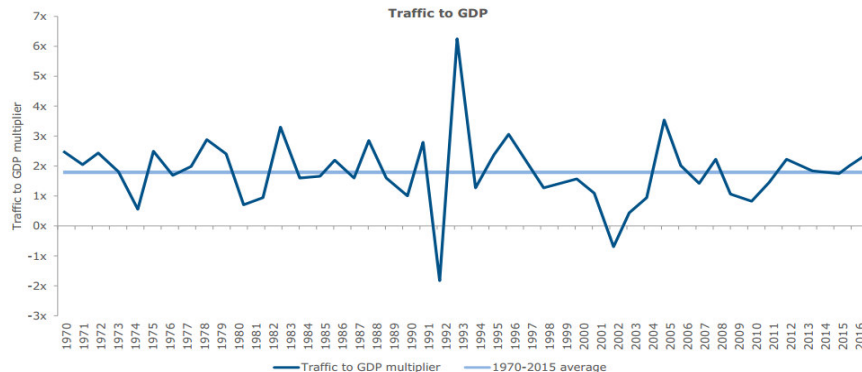
- Fuel efficiency is the biggest driver for the purchase of new aircraft.
- Oligopolistic industry structure for fuselages, engines and equipment.
- The aeronautical industry is fragmented and highly competitive.

Passenger Traffic Rarely Decreases

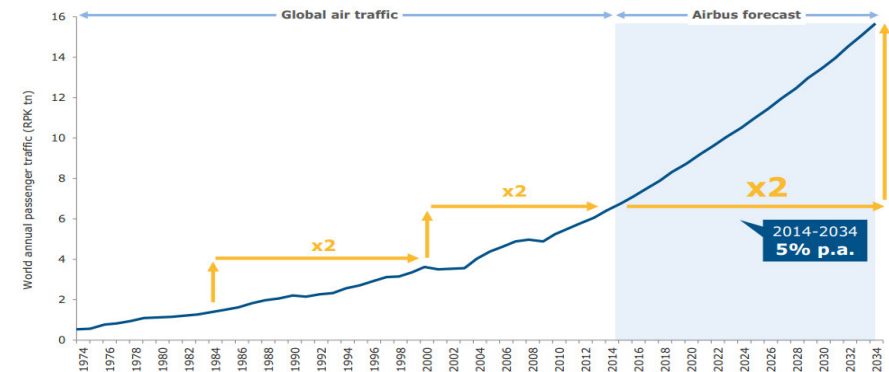


- Although aircraft orders experience some cyclicity, passenger traffic and deliveries tend to be resilient and usually revives very quickly any blimp in aircraft orders.
- In the past 50 years, aircraft orders have only decreased 5 times.

Air Traffic Grows to Approximately 2x the Global GDP



Air Traffic will Multiply by 2 in the Next 15 Years

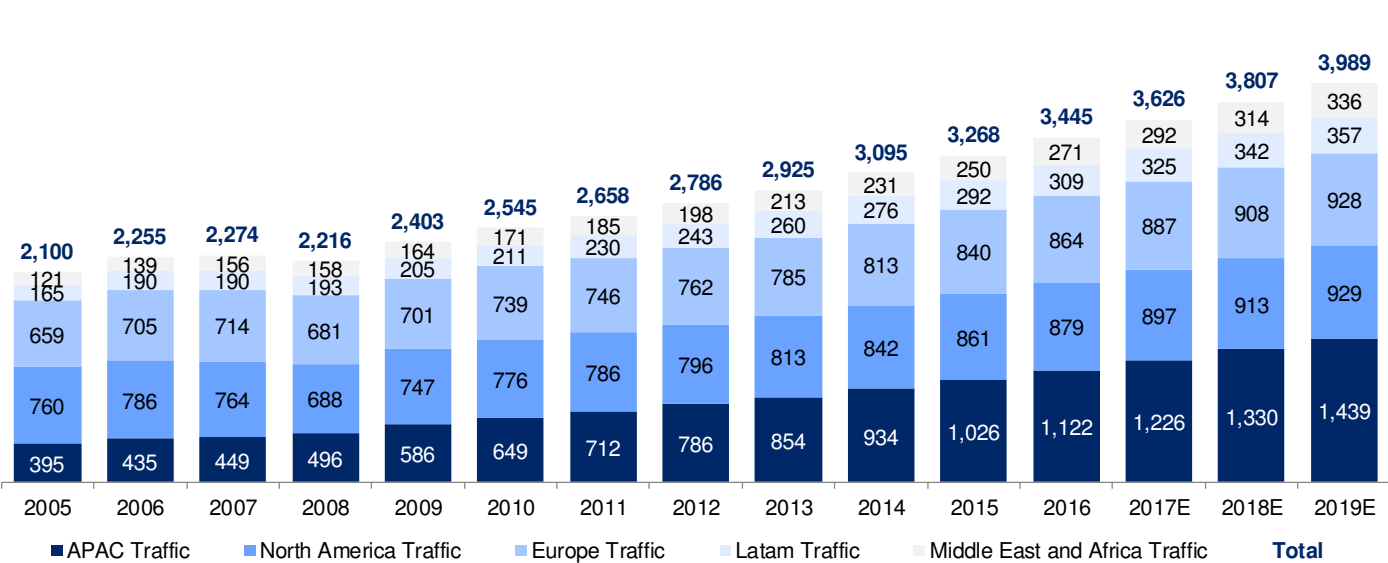


Aerospace | Increase in Air Traffic Evolution (2/2)

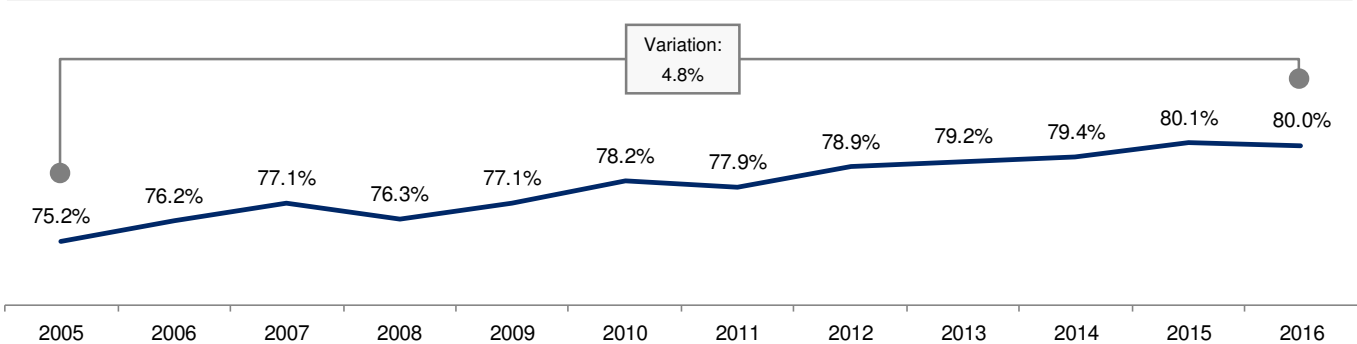
The positive momentum underlying air traffic growth and the resulting hike in load factors are prompting airlines to increase their fleet capacity to accommodate this growth

- Increasing air transport penetration under the continuous context of globalization:** The globalization trend has gradually changed people's traveling habit internationally, driving higher frequency in air transport usage, setting new records on a YoY basis.
- Increasing air traffic at global level:** Airline traffic has exhibited a tremendous growth during the past decade, with structural changes coming from the APAC region, which surpassed Europe and North America in 2013.
- New routes being launched:** Besides revenue management on existing routes, airlines have opened new routes. According to the IATA, 700 new routes have been opened worldwide in 2016, transporting a total of 3.4bn passengers on all routes.
- Growing load factor:** Airlines have increased their efficiency in filling seats and generating fare revenue. The increase in load factor from 73.5% in 2004 to 80% in 2016, is leading to capacity saturation.

Air Traffic per Region (million people)



Load Factor Evolution (%)

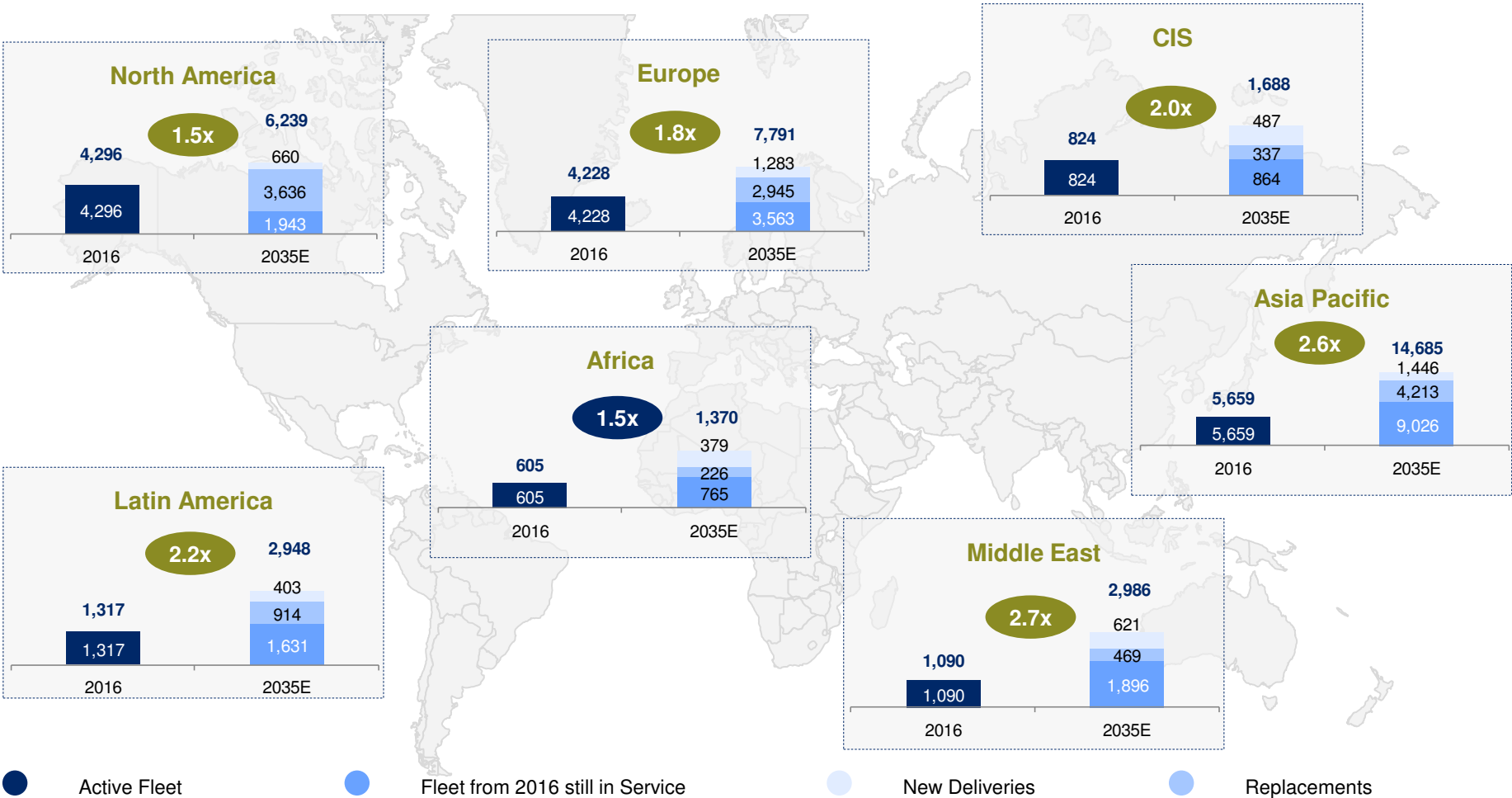


Source: IATA.

Aerospace | More Fleet to Meet Growing Demand

In the face of growing air traffic and need for higher efficiency, airlines’ orders strategy will be grounded on the need for both: i) New aircraft for growing demand ii) Replacement of old fleet for new and more efficient aircrafts

Fleet Overview per Region (# units)

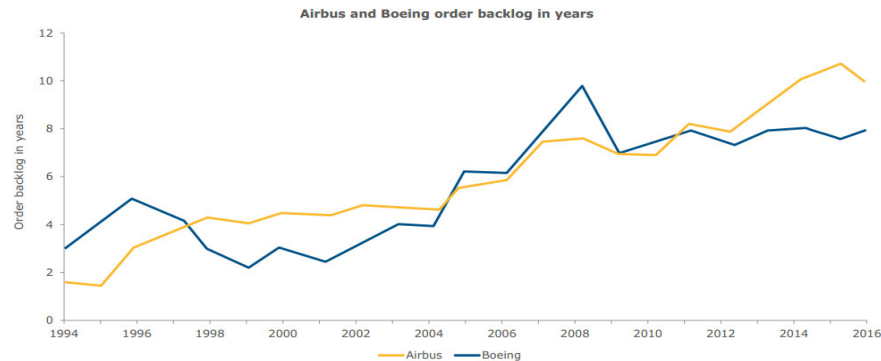


Note: Replacements represent fleet that will be retired from service.

Aerospace | More Fleet to Meet Growing Demand

The order backlogs of Airbus and Boeing continues to grow as airlines continues to place record-breaking orders YoY. In fact, Airbus and Boeing are increasing their delivery rates and are pressuring their suppliers to keep pace

Order Backlog Evolution of Airbus and Boeing



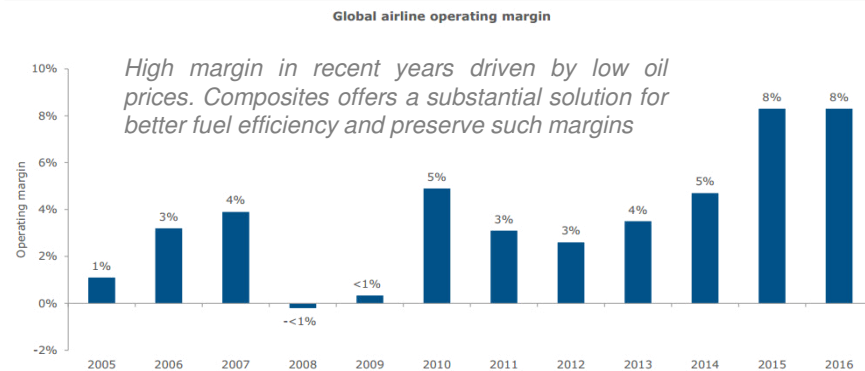
High accumulated orders for aircraft support the expected production rates.

Airbus is Focusing on Four Major Programs

A320 545 deliveries	A330 66 deliveries	A380 28 deliveries	A350 49 deliveries
			
<ul style="list-style-type: none"> Narrow body Short haul Single aisle 200 passengers 	<ul style="list-style-type: none"> Wide body Long haul Twin aisle 300 passengers 	<ul style="list-style-type: none"> Double-decker Four engines 550 passengers 	<ul style="list-style-type: none"> New wide body Carbon fibre 25% lower fuel burn 350 passengers

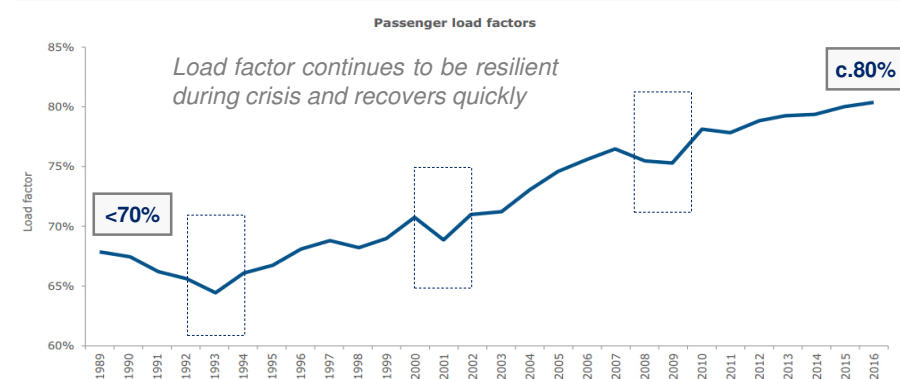
The deliveries of Airbus aircraft in 2016 reached its record, standing at 688 aircraft, and have grown consistently in all years.

Improving Margins of Airline Companies Drive Orders



New aircraft orders are supported by the higher profitability of the airlines

Passenger Load Factor Increasing Year on Year



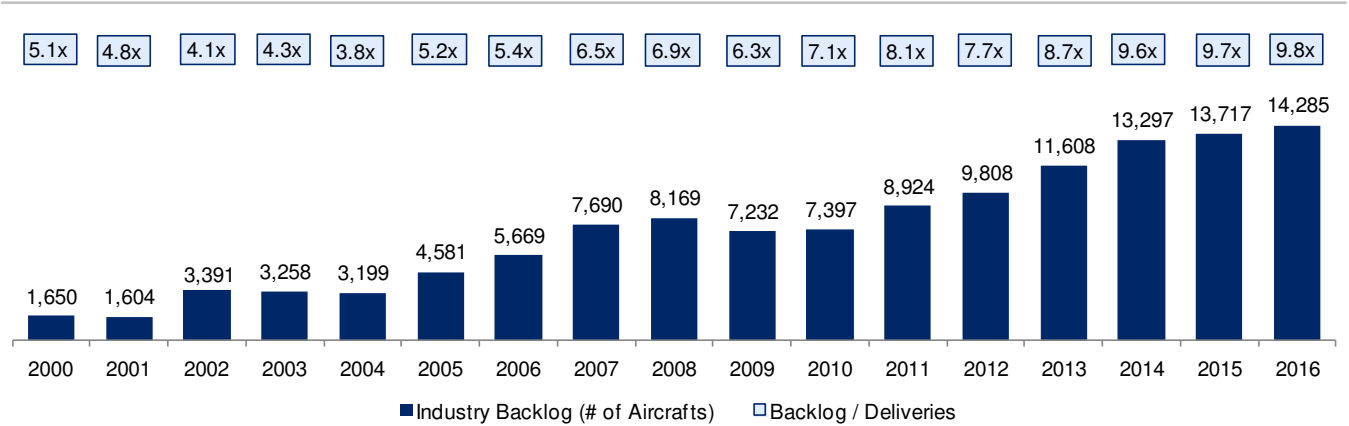
Airlines need more planes because passenger load levels are at record levels

Aerospace | Record Backlog & Delivery Demands

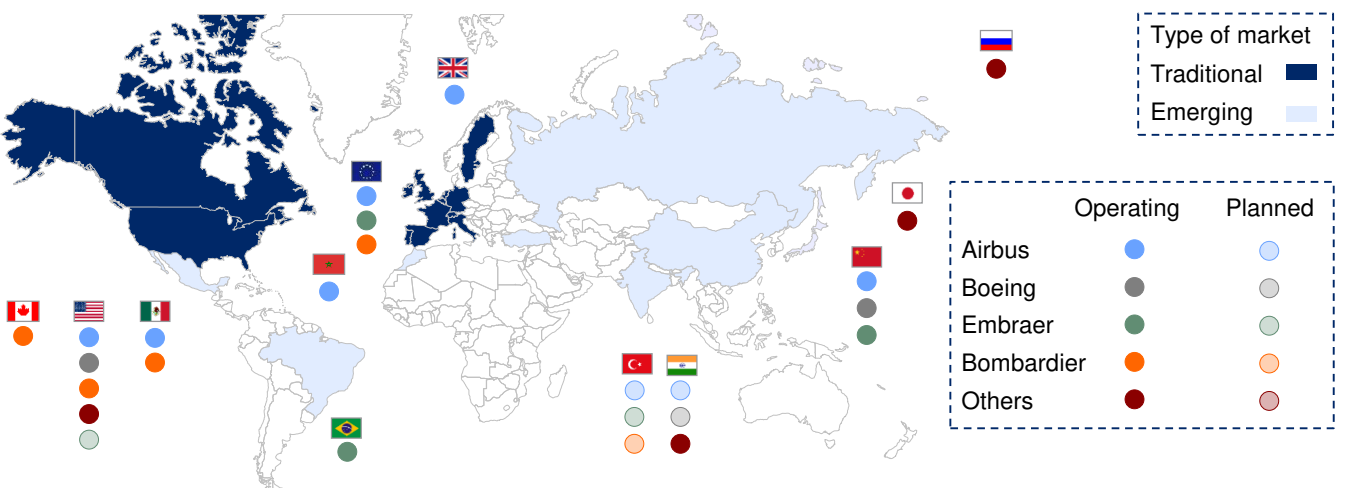
OEMs have won record orders in the past years and have an ever-growing backlog. The biggest challenge facing OEMs currently are timely and faster delivery schedules which is putting pressure along the supply chain

- Delivery increase:** OEMs are trying to win market share by increasing their delivery rates so that they can avoid fines on late deliveries.
- Supply chain spill-over:** OEMs' suppliers have anticipated the backlog clearing focus trend and they are now in prime position to scale rates seamlessly benefiting from new work packages. In 2016 the industry accumulated a backlog representing almost 10 years of delivery.
- Tier 1 to Tier 2 Outsourcing:** OEMs are currently working with fewer but more reliable, in terms of performance excellence, suppliers. As a result, Tier 1 suppliers will outsource part of the tasks they used to perform so Tier 2 will have the chance to start carrying out higher value added activities.
- Geographical expansion:** Tier 2 suppliers will have the opportunity to increase their geographical footprint as they will be able to enter new markets where the leading OEMs (Airbus and Boeing) are expanding their operations or where emerging OEMs (Embraer, Bombardier, Comac) are going to develop their own new programs.

Evolution of Orders Backlog (# units)



Upcoming Programs, Trends and Routes in the Aerospace Industry



Aerospace | Challenging Delivery Schedule

The biggest challenge for the aerospace sector is to clear the existing backlog at unprecedented levels of delivery significantly increasing the pressure down the supply chain

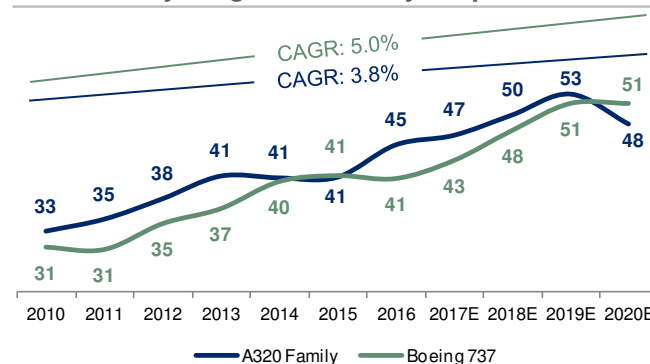
Key Highlights

- **Shift in Focus:** Industry focus has shifted from amassing orders to Boeing and Airbus' huge backlog and how this will affect their supply chain.
- **Investment is Key:** Suppliers are investing in expanding capacity and are focusing on providing stock just when needed in order to maintain sync across the entire supply chain.
- **Record Delivery Rates:** In 2020, the two companies plan to deliver 65% more planes than 10 years ago.
- **Drum & Beat:** Supply chain dynamics will heavily focus on the A320 and B737 jets, which represents c. 80% of existing backlog of both OEMs.
- **63/Month:** Airbus is considering a more ambitious than expected increase in the production rate of its A320 short-haul passenger jet, to 63 per month by the turn of 2018.
- **Market Share Win-Back Strategy:** Similarly, Boeing is also considering plans to increase monthly production rate of its B737 model to 52 aircrafts by 2018.
- **Winners:** Increased volumes of orders and price pressures are beginning to deliver an overdue modernization of supply chain in the sector. Supplier such as Carbures who have foreseen this will now reap the benefits of their investments.

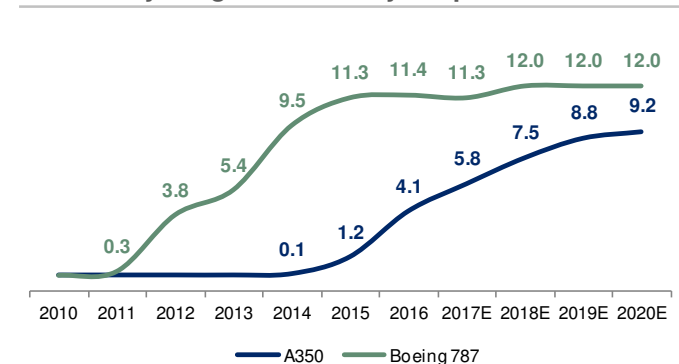
Delivery Schedule

	2010	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E
B737	376	372	415	440	485	495	490	520	570	615	615
B747	0	9	31	24	19	18	9	5	6	6	6
B767	12	20	26	21	6	16	13	24	30	30	30
B777	74	73	83	98	99	98	99	72	40	35	35
B787	0	3	46	65	114	135	137	135	144	144	144
Boeing Subtotal	462	477	601	648	723	762	748	756	790	830	830
Boeing Monthly Rate	39	40	50	54	60	64	62	63	66	69	69
A320 Family	401	421	455	493	490	491	545	561	595	630	580
A330/340	87	87	103	108	108	103	66	71	70	65	65
A350	0	0	0	0	1	14	49	70	90	105	110
A380	18	26	30	25	30	27	28	15	12	12	12
Airbus Subtotal	506	534	588	626	629	635	688	717	767	812	767
Airbus Monthly Rate	42	45	49	52	52	53	57	60	64	68	64
E190/5	75	92	85	62	29	17	18	19	42	49	51
C Series	0	0	0	0	0	0	7	36	58	77	80
Other Subtotal	75	92	85	62	29	17	25	55	100	126	131
Other Monthly Rate	6	8	7	5	2	1	2	5	8	11	11
Narrowbody	852	885	955	995	1,004	1,003	1,060	1,136	1,265	1,371	1,326
Widebody	195	218	319	341	377	411	401	392	392	397	402
Total	1,047	1,103	1,274	1,336	1,381	1,414	1,461	1,528	1,657	1,768	1,728
Monthly Rate	87	92	106	111	115	118	122	127	138	147	144

Narrow Body Programs Monthly Output Rate



Wide Body Programs Monthly Output Rate

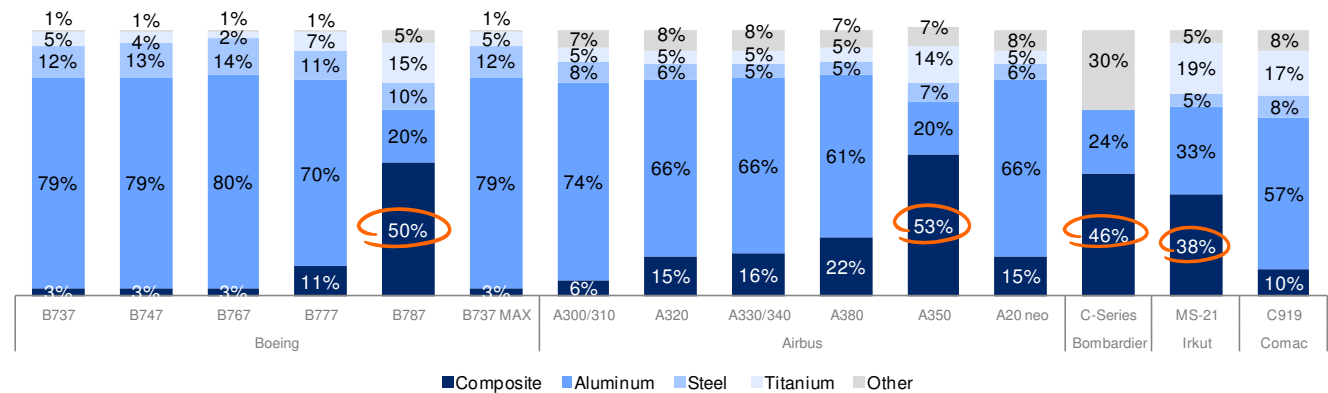


Aerospace | Higher Use of Composite Materials

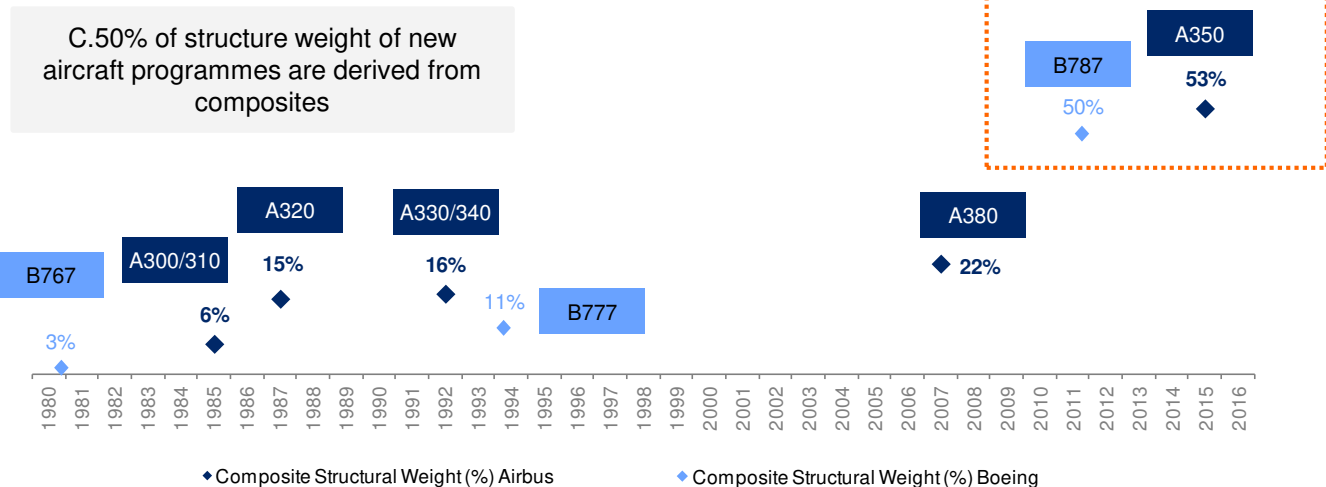
Suppliers offering composite components and aerostructures tend to have higher margins and are more valued by their partners since they offer higher value-added and differentiated solutions

- **Cost reduction:** Aerospace OEMs and suppliers, are increasingly using composites in order to reduce aircraft weight, helping airlines to reduce their operating costs as fuel consumption decreases.
- **Expertise:** The principal barriers to wide-spread use of composite materials are know-how and the high costs associated to such materials.
- **Eco-friendly:** Lighter aircrafts allow airlines to meet environmental regulations and to compensate any weight increase caused by the extensive use of electrical systems, safer and heavier seats, etc. Moreover, these materials help to enhance product life of aerostructures and performance, thus making planes safer and more efficient.
- **Other benefits:** As composites are formed by two or more materials creating a new one with unique features, they can be used in almost any aircraft component, making it more likely that the manufacturers expand the use in the near future.

Materials Structural Weight by Aircraft Model (%)



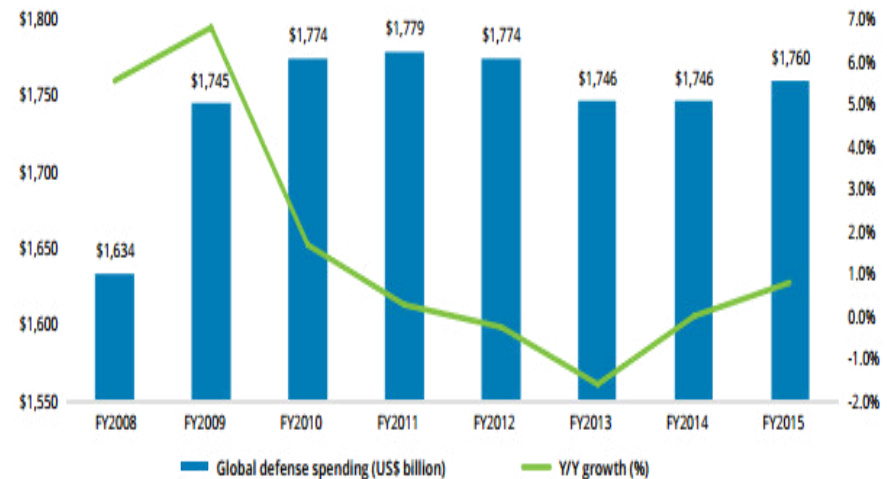
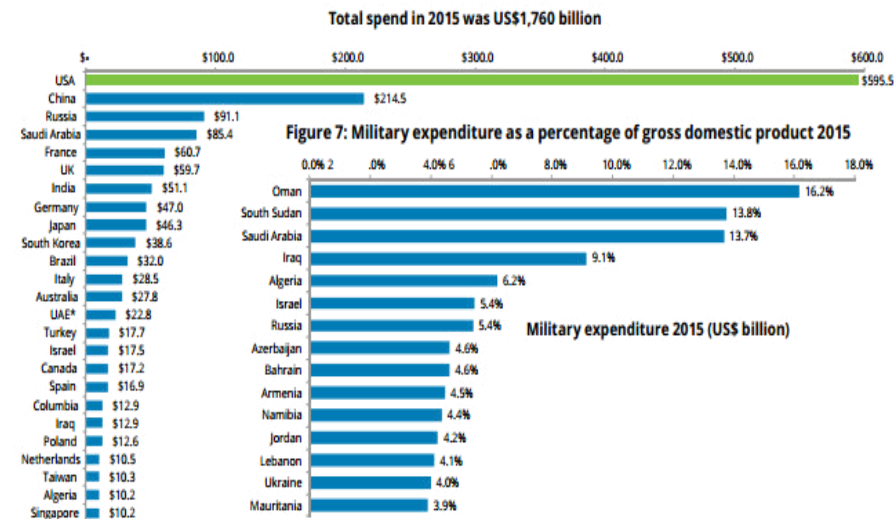
Aircraft Composites Usage Evolution



Defense | Increasing Global Defense Spending

The current high geopolitical tensions in various regions mean that many countries are recapitalizing and improving their existing defense assets. The past year have witnessed some landmark defense deals and it is expected to continue

Increase in Defense Spending Globally



Key Highlights:

- International demand for military and defense products is increasing in the Middle East, Eastern Europe, and the far-east.
- The United States is the country with the highest spending on defense (34% of the total global spending), but many countries in the Middle East and Africa have higher spending as a percentage of their GDP.
- Increase in defense spending since 2013 due to the current political tensions around the world.

Recent Highlights of Defense Spending of Spain:

- Meetings held by the Spanish defense ministry and NATO during early 2018 regarding Spain's new defense investment plan – doubling of defense spending within the next 7 years (c. 2% of GDP).
- Airbus and Navantia, which are major clients of Carbures have been awarded defense contracts of €20bn. This includes naval platforms, i.e. the F110 frigates and aerial platforms such as the MRTT among others, positioning Carbures as major beneficiary of these orders.

Automotive | Growing and Changing Demand

Vehicle demand in the automotive sector is expected to rise in the future mainly driven by the demand from some emerging economies such as China or India

■ Main drivers of future growth:

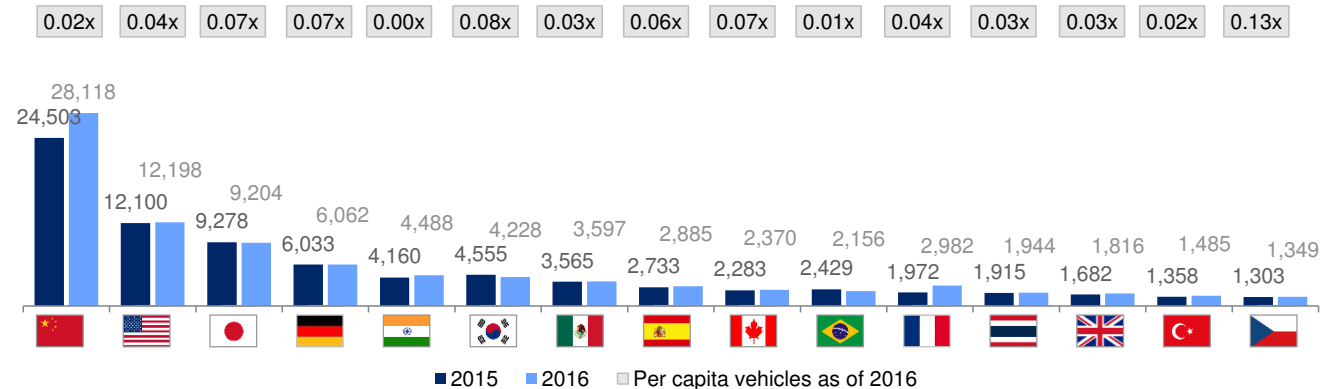
China and India will be the sector's prioritize growth drivers in the future. According to the World Bank, China and India's economies have grown at 6.7% and 7.1% respectively in 2016, showing the economic prowess of both countries. In fact, they are two of the countries with the lowest ratio of vehicles per capita, indicating a tremendous growth in the future.

■ **Competition:** The automotive sector is highly competitive, where OEMs are competing to capture wallet share via innovative designs and product offerings.

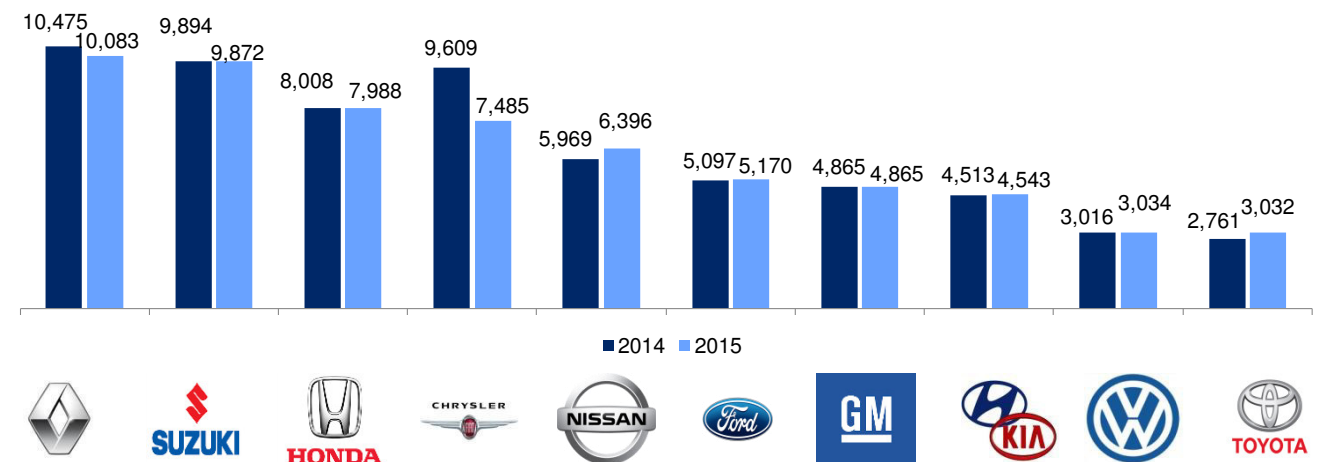
■ **Innovation:** The sector is likely to suffer notable changes in the near future. CO2 emission regulations and the increasing investment in autonomous driving technology will change the type of cars demanded by customers and manufacturers will have to adapt their offer.

■ **Change:** The automotive industry is expected to modify their production processes, and product offerings. They plan to start offering more fuel efficient and lighter vehicles.

Top 15 Motor Vehicle Producing Countries in 2015-2016 (k units)



Top 10 Largest Manufacturer by Production in 2014-2015 (k units)

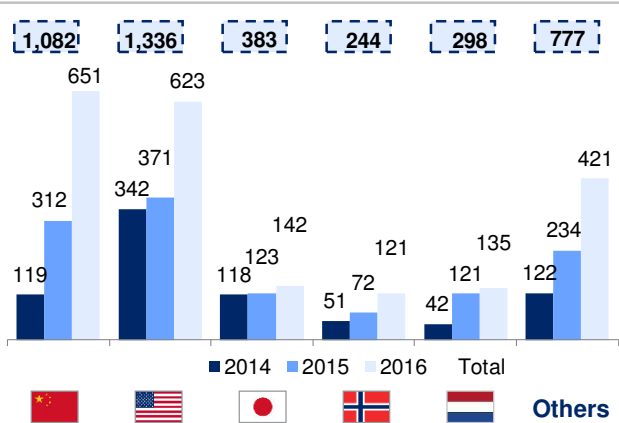


Automotive | Solutions for Environmental Regulations

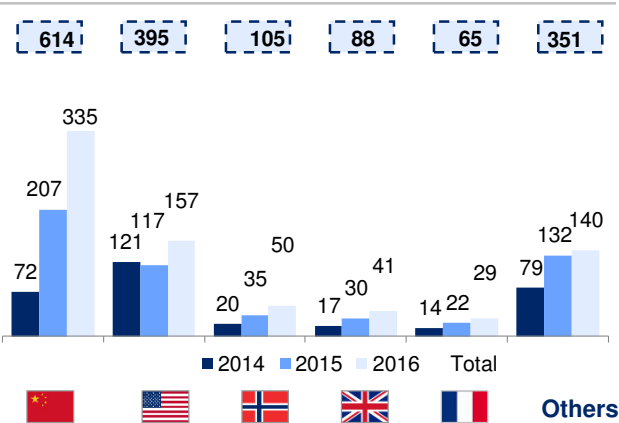
Meeting stricter global CO2 emissions targets will be the major concern for automakers, and the two primary methods to achieve those requirements are alternative fuel sources (ethanol, electricity, etc.) and light weighting solutions (use of composites)

- **Two Solutions:** Automakers will be pressured in the future to achieve certain guidelines for CO2 emissions. Alternative fuel source such as electricity and the use of composites to make cars lighter are the two main ways.
- **Record Sales of Electric Cars:** New registrations of electric cars hit a record in 2016, with over 750k sales worldwide. Norway has achieved the most successful deployment of electric cars in terms of market share globally. 95% of sales were concentrated in 10 countries.
- **New Dominant Country:** Until 2015, the USA accounted for the largest proportion of the global electric car stock. However, in 2016, China overpassed them with about a third of the global total.
- **Composites:** In order to achieve fuel efficiency and comply with stricter regulations, automakers will have to make their cars lighter. Materials such as aluminum and carbon fiber represent a better alternative to traditional materials as they respectively weigh 40% and 50% less than steel.

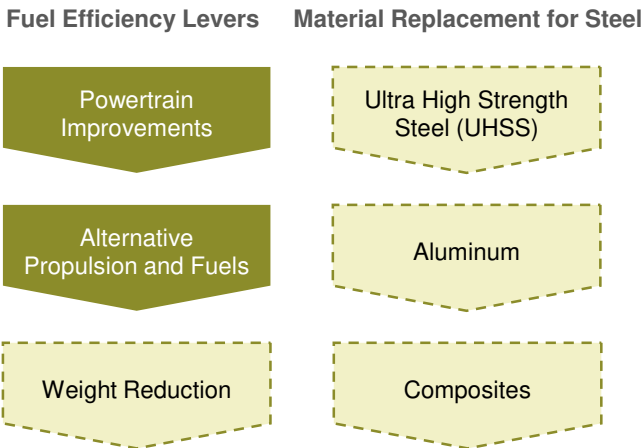
Stocks of Electric Cars (k units)



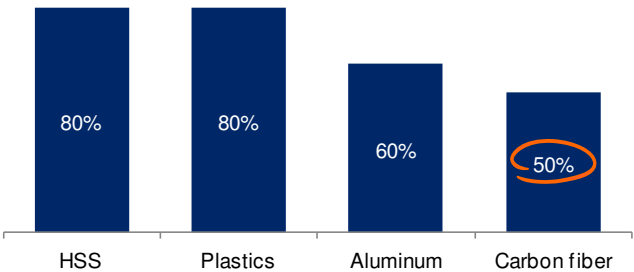
Sales of Electric Cars (k units)



High Pressure for Weight Reduction



Part Weight as a % of Steel

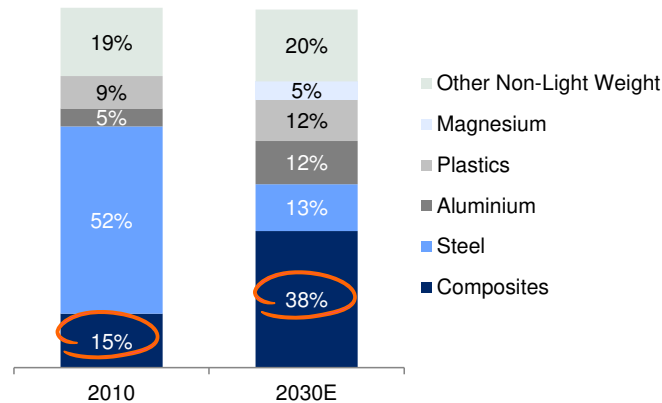


Automotive | Light Weighting as Wining Solution

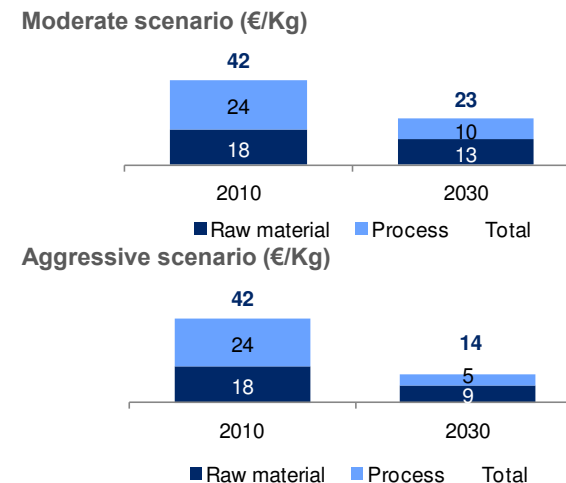
In the future, lightweighting will be based in the use of composite materials in the manufacturing of autoparts as they provide features that traditional materials can not offer

- **Light weight materials gaining grounds:** Aluminum and composites will increase in importance among automakers, reaching together an estimated c.50% of the raw materials used.
- **Current cost is relatively in the high range:** Over the next two decades, there will be a significant cost decline for automotive CF applications, from 42€/kg to 14€/kg in the most aggressive scenario based on a report by McKinsey.
- **Decreasing cost levels driven by tech innovation:** Development of a less expensive precursor material to produce CF and a reduction for pre and part forming of 60% to 80% caused by the development of fast curing resins.
- **Future Trends:** HSS will see strong growth in the next decade. CF and aluminum will experience a period of strong growth with CF growing at c.20% CAGR. The number could even grow further if environmental restrictions become stricter or if the cost of CF keeps dropping.

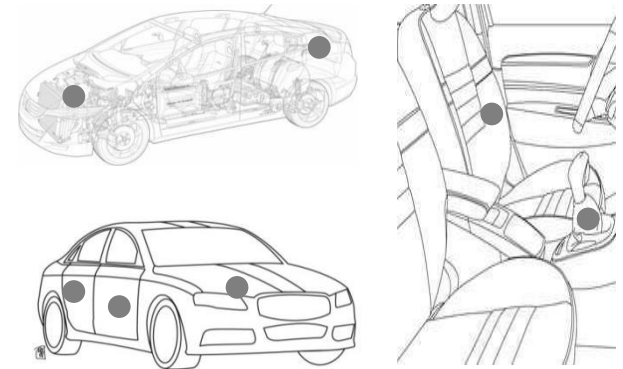
Auto Materials Split



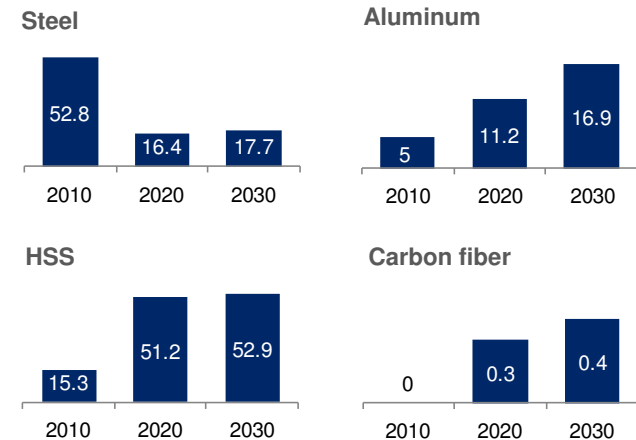
Cost Disadvantage Reduction of CF



Composite Parts of Cars



Base Materials Use Evolution (M tons)



Civil Works | Carbon Fiber Applications

Carbon fiber composites have a clear edge in civil works applications with superior performance, and is still an under-explored area given its high costs and lack of specific technical know-how when it comes to civil works

Composites Advantages in Civil Works

Light Weight

- Optimization in costs of transport of materials, handling and assembly.
- Reduction of weight load over the rest of the structure.

Non Corrosive

- Ideal for coastal and maritime infrastructure applications due to its resistance to environmental corrosion with barely any need for maintenance.

Resistance

- High tension performance for compression, flexion, and cutting tests.

Workability & Finishing

- Easily adaptable to complex forms which facilitates structural refurbishment.
- Multiple finishing forms ranging from matte, rough, glossy, transparent, among others.

Low Conductivity

- Its low thermal conductivity makes it an ideal thermal isolator.
- It also serves well as electrical isolator given its electrical resistance.

Acoustic Absorption

- By using specific active ingredients and given proper forming and design, it could turn into an acoustic isolator.

Carbon Fiber Applications in Civil Works

Repair & Reinforcement

- Carbon fiber has an increasing use in structural repair and reinforcement as an alternative to traditional methods.
- It applies prepreps or carbon fiber laminates to surfaces by using thermal stable adhesives (epoxy resins).



High
Level of Application

Prefabricated Carbon Fiber Components

- Application in the production of auxiliary construction elements such as profiles, beams, pipes, frames or pre-stressed cables.
- Limited current application due to high cost and lack of engineering know-how for construction.
- Braced bridges, walkways are typical applications.



Low
Level of Application

Frame to Cement Structures

- Reinforcing bars manufactured with carbon fiber with special surface treatment to fit cement adherence given its superior durability.
- Carbon fiber reinforcing bars are used due to its better anti-corrosion performance against traditional materials.



Low
Level of Application

Section I. Company Overview

Section II. Market Overview

Section III. Key Investment Highlights

Section IV. Financial Highlights

Section V. Appendix: Business Units Detailed Overview

Key Investment Highlights

Carbures represents an excellent investment opportunity due to the combination of a consolidated and diversified business model, an excellent competitive position and a solid strategy to tackle a fast growing market

1 Attractive Markets with High Growth

2 Excellent Leadership Position

3 Consolidated & Diversified Business Model

4 Profitable Growth-Driven Strategy

5 Experienced management Team

“Excellent position to capture significant profitable growth”



1 Market Trends | Overview

Mega-trends such as light weighting, cost reduction and improved performance demands are driving accelerated growth of specialty materials, particularly in certain end-markets such as aerospace, automotive and energy



Weight reduction for Aircrafts, Automobiles and Infrastructures

- The latest aerospace programs (e.g., Boeing 787 and Airbus 350 XWB) use composites to significantly reduce weight of aircrafts with the aim of extending operational range and reducing fuel costs.
- Automobiles are the current primary end-market beneficiaries of weight reduction, mitigating CO₂ emissions and enhancing fuel efficiency.
- Other forms of transportation (e.g. spacecraft, bicycles, public transportation) will be future and up beneficiaries of high performance specialty materials.



Cost Saving

- On a strength per cubic inch basis, many specialty materials have a lower cost than traditional products.
- Composites and other related specialty materials have reduced maintenance requirements due to high durability.
- Significant waste reduction during fabrication due to extreme flexibility in the design and manufacturing process.
- Shape molding reduces machining costs, allows for parts consolidation, and eliminates the need to piece together complex parts.
- From a total life cycle cost analysis, specialty materials are less expensive than traditional materials.



Feature and Performance Improvements

- Specialty materials can be designed with almost unlimited flexibility and near net shape molding, giving designers true capability to combine multiple parts.
- Certain specialty materials may be chemical and corrosion resistant, highly flexible, noise dampening, contain dielectric properties, or perform well at temperature extremes, making them attractive for harsh environments such as aerospace and oil and gas applications.
- They are more resistant to fatigue than traditional products, with increased durability and product life.



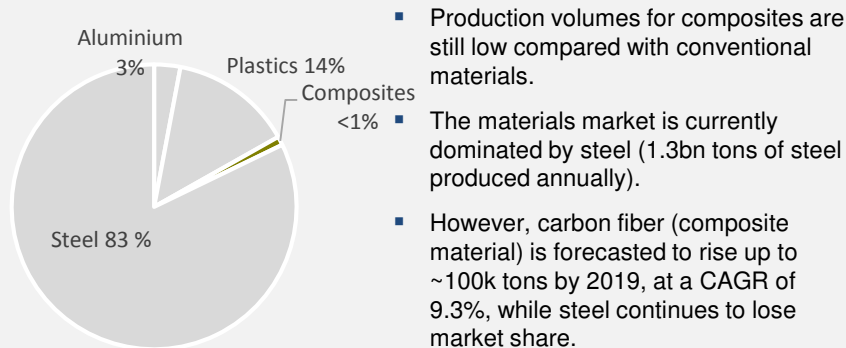
Improvement in Environment and Lifestyle

- Increased consciousness of environmental impact drives specialty material use in automobile, aviation, and marine applications.
- Durability increases product lifetime, reducing waste and product degradation.
- They increase clean energy production by improving the efficiency of production methods such as wind energy capture.

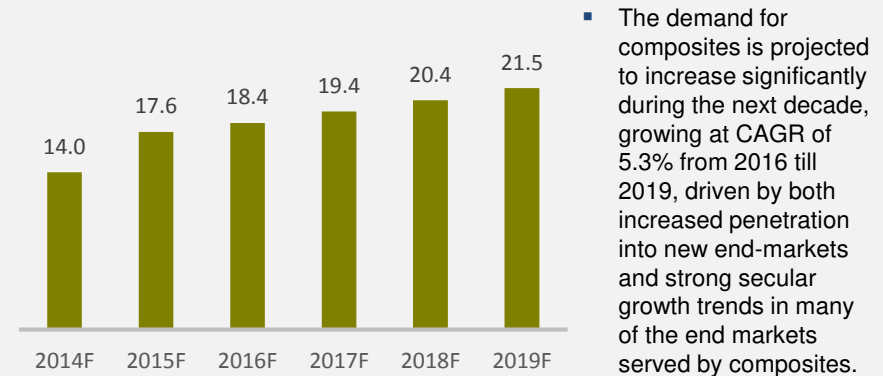
1 Market Trends | Growth Potential

According to latest available data, the composite market is expected to grow at a CAGR of 5.3% in the next 3 years (2017-2019), with end-markets such as aerospace, wind energy and transportation representing a big part of that growth

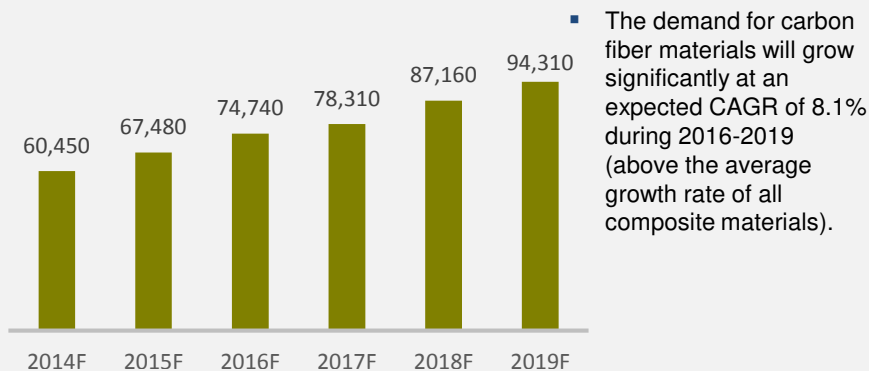
Global Materials Market (2014, tons)



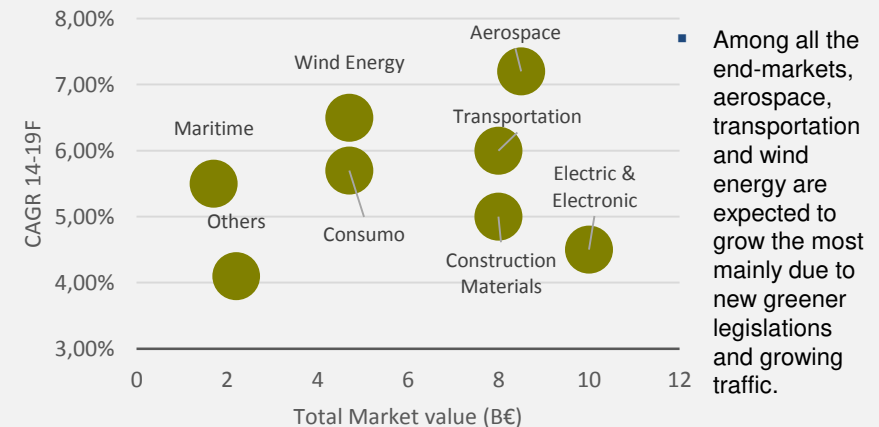
Global Composites Market Forecast (€bn)



Global Carbon Fiber Demand Forecast (metric tons)


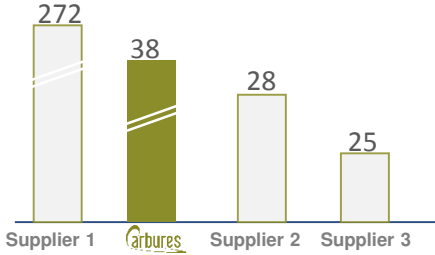





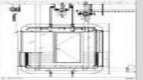




Composites Expected Growth by End-Markets (2014-2019)



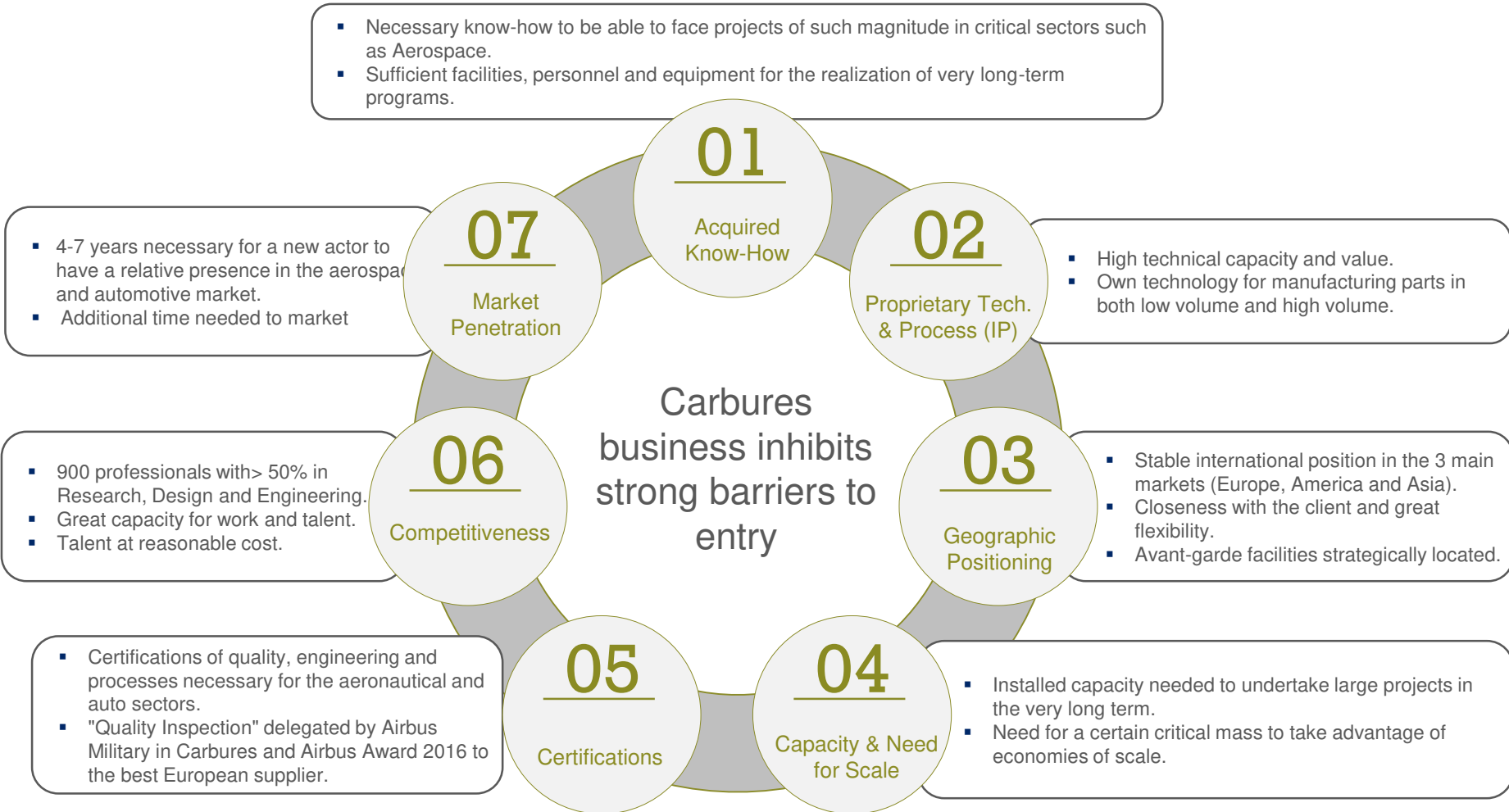
2 Leadership Position | High Market Share

Carbures is a highly capable Tier 2 supplier for the global aerospace and mobility sectors, whose track record, capabilities and knowhow position itself to benefit from the increasing shift to composites

Segments	Competitive Position	Main Aspects	Clients
 Aerospace & Defense	Revenues 2016 (€m) 	<ul style="list-style-type: none"> Client relationship based on mutual collaboration of interests. Functional flexibility and speed thanks to a simplified structure. Qualified supplier within the Boeing supply chain, with access to the offers from OEM programs. 	<div>OEM's</div>  <div>Tier 1</div> 
	Revenues 2016 (€m) 	<ul style="list-style-type: none"> Analysis and design of the products hand in hand with the clients. Global contracts with main auto parts manufactures. Excellent project management. Proximity and flexibility. 	<div>OEM's</div>  <div>Tier 1</div> 
 Civil Works		<ul style="list-style-type: none"> Participation in more than 1,240 projects of E&C. More than 32 million man-hours executed. Symbolic projects: Roof top for Norman Foster Foundation, DACOMAT project, etc. 	<div>Engineering & Others</div>  <div>Construction Companies</div> 
















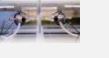
2 Leadership Position | High Barriers of Entry

Carbures has a consolidated presence in industries with high barriers to entry and in which to enter it is necessary several years of previous work



2 Leadership Position | State of the Art Facilities (1/2)

On the back of years of disciplined investments, Carbures currently operates 10 vanguard production facilities with high levels of installed capacity together with multiple engineering centers...

Aerospace & Defense						Civil Works
Facility	Illescas	Tecnobahía (Puerto) ⁽¹⁾	Airport (Jerez)	Aerópolis (Seville)	Harbin	Mexico DF
Facility Display						
Inauguration	2003	2005	2012	2008	2014	1970
Tech. Cap.	HLU ⁽²⁾	HLU ⁽²⁾ , VIP, RTM	HLU ⁽²⁾ , VIP, RTM	Engineering	HLU ⁽²⁾	Engineering and Civil Works
Main Production Assets	 CNC cutter Gerber  Autoclave Olmar&Thelmar -15m x 3m -3.5m x 1.5m  Testing Tecnatom & 3 more others	 CNC cutter  Autoclaves Olmar x 2 -7m x 3m  Testing	 CNC cutter Zünd  Autoclave Olmar&Scholz -12m x 4m -1.4m x 1.6m  Testing Tecnatom Olympus	System manufacturing center, prototype development, 3D printing and electrical component assembly 	 CNC cutter  Autoclave Olmar x 1 -7m x 4m  Testing	Had participated in 339 contracts and developed more than 1,240 projects in engineering, supervision services, with more than 32 million man-hours
Working Area	8,658 sqm	2,450 sqm	7,500 sqm	2,000 sqm	2,500 sqm	1,219 sqm
Other Area	3,468 sqm	1,000 sqm	4,320 sqm	-	1,651 sqm	140 sqm
Main Programs	A320, A330, A350, A380	A320Neo, A350	A320Neo, A330, A350, A400M, A330MRTT, C295	A400M, MRTT (Including flight control stick)	A320, A350	Study, Procurement, Engineering, Supervision

Note 1: Besides the five production facilities above displayed, the A&D division also has two sales & engineering offices in Toulouse (France) and Greenville (USA).


























Note 2: The Company expects to open in 2019 a new factory in Getafe for the A&D division.

(1): Manufacturing plant shared with Civil Works division.

(2): HLU stands for Hand Lay Up, a form of composite curing technology.

2 Leadership Position | State of the Art Facilities (2/2)

...These modern and well invested facilities are located across 7 countries and in many times, at very close proximity to their key clients

Mobility						
Facility	Burgo de Osma	Manresa	Suzhou	Tychy	Querétaro	Saginaw-Detroit
Facility Display	 	 	 	 	 	 
Inauguration	2014	1998	2017	2003	2004	2002
Tech. Cap.	RTM, RMCP	Engineering, Production & Assembly	Engineering, Production & Assembly	Engineering, Production & Assembly	Engineering, Production & Assembly	Engineering & Technical support
Main Production Assets	 AFP Kuka  Autoclave Olmar x 1 -10m x 4m  RTM line  RMCP line Patented Technology	 Engineering & Assembly 5 buildings of assembly and engineering  Manufacturing CNC cutter	 Engineering & Assembly 1 building of assembly and engineering  Manufacturing CNC cutter	 Engineering & Assembly 1 building of assembly and engineering  Manufacturing CNC cutter	 Engineering & Assembly 2 buildings of assembly and engineering  Manufacturing Assembly tools	 Engineering & Assembly 1 building of assembly and engineering
Working Area	1,829 sqm	4,653 sqm	850 sqm	1,348 sqm	1,731 sqm	139 sqm
Other Area	835 sqm	-	-	-	-	-
Main Programs	Composites part manufacturing, assembly and system testing	Design, manufacturing, assembly of assembly and test systems	Design, manufacturing, assembly of assembly and test systems	Design, manufacturing, assembly of assembly and test systems	Design, manufacturing, assembly of assembly and test systems	Design and after-sale service of assembly and test systems

Note 1: Besides the five production facilities above displayed, the Mobility division also has a sales & engineering offices located in Munich (Germany).

3 Consolidated & Diversified Business Model | Innovative Products

The group offers innovative products that bear long term perspective, offers synergies between different business sectors and other cross selling potentials

Aerospace & Defense

Aerospace & Defence Parts Manufacturing

Manufacture of carbon fiber composite parts for all Airbus programs (A320, A330, A340, A380, A350, A320Neo, A440M and A330MRTT, A400M, etc.)



Viga, Oil tank
Doors, etc.



MLGD Omegas,
Panels, etc.



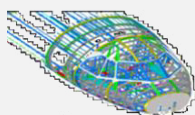
Angles, Shims,
Shovel, etc.



Dorsal,
Stiffeners,
Angles, etc

Aerospace & Defence Engineering Services

Specialized engineering services covering system design, simulation, testing, etc.



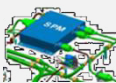
Concept Design
(Metalic & Composites)



System Design &
Engineering

Equipments & Systems

Development of on-board electronic equipment, sensors, tooling and consoles, among others.



Electronics
Components



Systems



DAL A for
SW & HW

Mobility

Automotive Parts and Systems

Engineering services for composite based light weight solutions, and manufacture of composite parts for automotive industry.



Powertrain



Brakes



CF Minor Parts



Seats & Doors



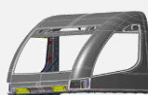
Steering



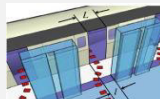
CF Structure Parts

Rolling Stock Parts

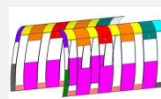
Development of structure/ interior/ electronic parts and systems for multiple range of rolling stock vehicles. Also provides testing tools and services.



Metro Cabin
Parts



Evacuation Door



Train Body Panel

Machinery

Design and manufacture of test equipment and assembly lines for Tier 1 automotive players.



RMCP
Manufacturing
Line



Testing Line



Assembly Lines

Civil Works

Engineering & Supervision

Integrated service for study, engineering and project supervision for industrial construction and infrastructure projects.



Oil & Gas Platforms



Infra & Industrial Projects

Construction Composite Materials

Design, manufacture and assembly of composite materials for construction works with structural repair solution with Fiber Reinforced Polymer.



GFRP⁽¹⁾ Roof



Electricity Cabin



CFRP⁽²⁾ Materials

Composite Applications in infrastructure

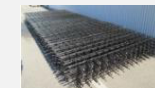
Pioneer project that includes the material development, engineering and assembly services for infrastructure projects.



Port Dolphins



CFRP⁽²⁾ Beams



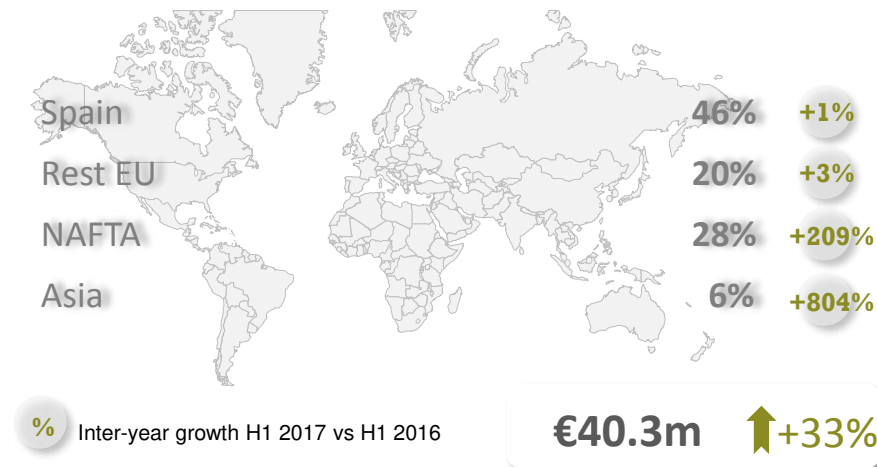
GFRP Mesh

(1): GFRP stands for Glass Fiber Reinforced Polymer.
(2): CFRP stands for Carbon Fiber Reinforced Polymer.

Increasing diversification as business growth accelerates, both by sector and by region

Geographic Diversification

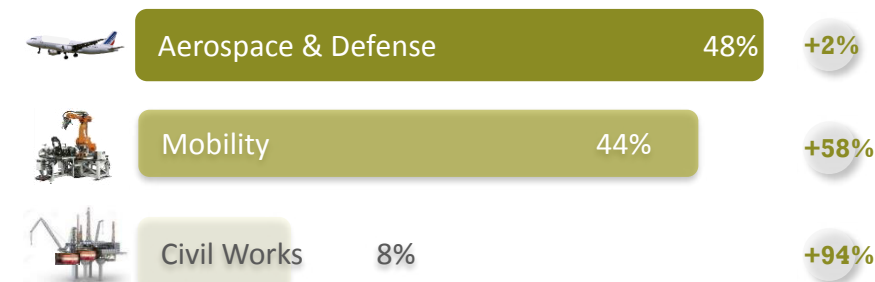
Distribution of Sales & Growth H1 2017



- Growth in all the regions in which Carbures has activity.
- Growth in Spain and the rest of the US, although to a lesser extent than in the other regions.
- NAFTA: increasing activity there significantly, especially in Mexico and the US.
- Asia: + 800%, starting to enhance the plant Carbures has in China.

Main Business Activities

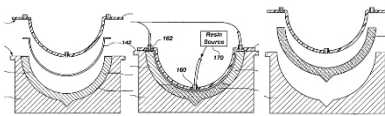
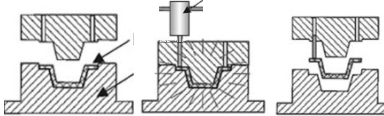


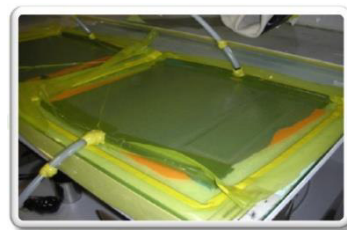


Distribution of Sales & Growth H1 2017



- Growth in all our business sectors.
- Aerospace + 2%: excellent industrial performance.
- Mobility + 58%: growing Machinery business and award of new contracts with different Tier 1.
- Civil Works + 94%: execution of contracts with new clients, giving rise to an increasingly diversified customer base.

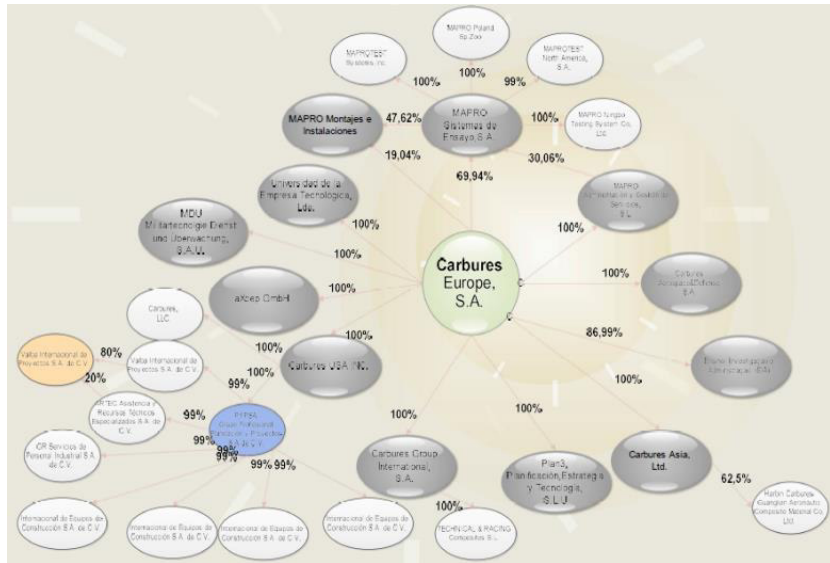
3 Consolidated & Diversified Business Model | Clear Focus on Technology

Carbures possess cutting-edge technology as a source of competitive advantage as well as proprietary processes and methods for parts manufacturing that caters to the needs of aerospace, automotive and civil works sectors

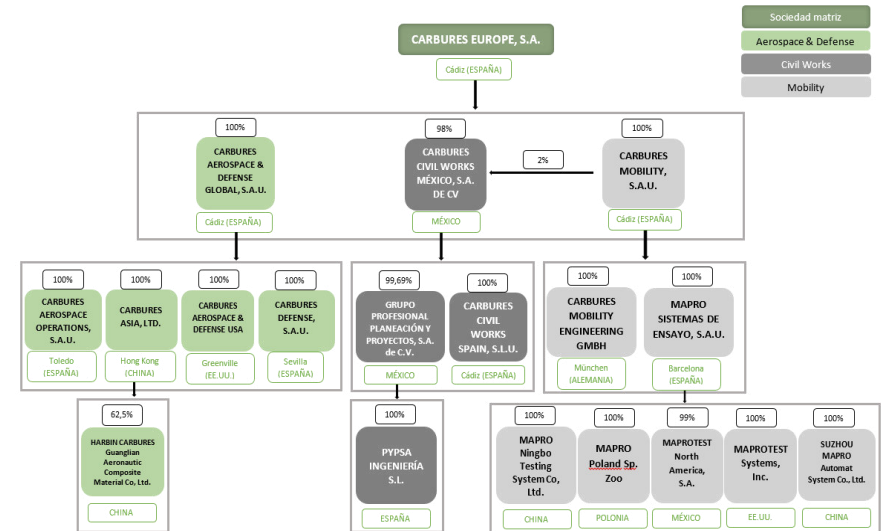
Technology	VIP	RTM	RMCP	Industry 4.0
Introduction & Industry Application	Vacuum Infusion Process (VIP) <ul style="list-style-type: none"> Closed mold process that uses atmospheric pressure. Low tooling requirements yet lower cycle time and higher consumable costs. <p>A Aero</p>	Resin Transfer Molding (RTM) <ul style="list-style-type: none"> Fabrication by resin injection in dry fiber laid molds with high tooling requirements. Suitable for high quality auto body parts, containers, etc. <p>A Aero M Mob C CW</p>	Rapid Multiinjection Compression Process (RMCP) <ul style="list-style-type: none"> Patent technology process for the manufacture of high volume structural composite parts. New OOA process developed by Carbures. <p>A Aero M Mob</p>	Industry 4.0 <ul style="list-style-type: none"> Complete digitalization of the entire value chain via integration of data processing technology, intelligent software, robots and sensors. <p>A Aero M Mob</p>
Process	<ul style="list-style-type: none"> High quality control standard. Autoclave & OOA curing. <p>Placing Infusion & Consolidation Cured Parts</p> 	<ul style="list-style-type: none"> High quality control standard. Autoclave & OOA curing. <p>Preform Resin transfer Heat curing Finished Parts</p> 	<ul style="list-style-type: none"> >50,000 structural parts/yr. Automated RTM line. <p>Automated RTM Press Cutting CNC & AFP</p> 	<ul style="list-style-type: none"> Automized systems. Cloud computing. Collaborative robots. Artificial vision. Integrated information system. 
Display				

(1): OOA stands for "Out of Autoclave", a type of composite material curing process.

From a Complex and Atomized Structure...



To a Simplified Operating Structure to Boost the Business



35

4 Profitable Growth-Driven Strategy | Reinforcement of Balance Sheet

Reinforcement of the balance sheet in 2017: Reduction of 43% in net debt and reinforcement of equity that is clearly driving the business

Net Debt

€60.8m

Net Debt Jun'17



(43)%

1

Reduction of €58m in gross debt at the end of June 2017 by the capitalization of the convertible debt.

2

Only ~€14m of structural debt with financial institutions and another ~€6m in working capital facilities.

3

The remaining debt is mainly with the Public Administration: Flexible, low cost and with very long term maturities.

Shareholders' Equity

€42.1m

Sh. Equity Jun'17



+426%

Working Capital

€12.9m

Working Capital ⁽¹⁾



+ €21.8m

4

The reinforcement of the capital structure is clearly driving the business: increase in the pipeline of projects and access to new financing lines for working capital.

5

Renewed confidence in Carbures by financial institutions and their reference shareholders.

6

Shift to the Madrid Stock Exchange scheduled for 2018, in accordance with the new industrial reality of Carbures.

%

Inter-year growth H1 2017 vs H1 2016

(1): Working Capital: Current assets minus current liabilities.

5 Experienced management Team

Highly experienced management team and a stable group of shareholder that supports the corporate business plan

Management Team

- Team with extensive and well regarded in the sector.
- Average tenures of General Managers in the company: 15 years+.
- New CEO and CFO in order to execute a new stage of growth and profitability.



Rafael Contreras
Executive Chairman
Founder: 1999



Borja Martínez-Laredo
Chief Executive Officer
Incorporation: 2017



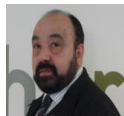
Jorge Moreno
Chief Financial Officer
Incorporation: 2017



Javier Moreno
A&D General Manager
Incorporation: 1999



Imad Ghawaly
Mobility GM
Incorporation: 2016



Raúl García
CW General Manager
Incorporation: 1999

Competencies and Corporate Achievement



Implement a clients service oriented culture and enforcing high ethical standards.



Position the Company as a benchmark in the industry and in the sectors in which it operates.



Operational and financial restructuring carried out successfully in 2017.



Organic growth and profitability improvement through the execution of efficiency programs.



Extensive experience and knowledge of the sector.



Combination of highly technical profile with corporate management skills at an international level.



Pride of belonging to Carbures.

Section I. Company Overview

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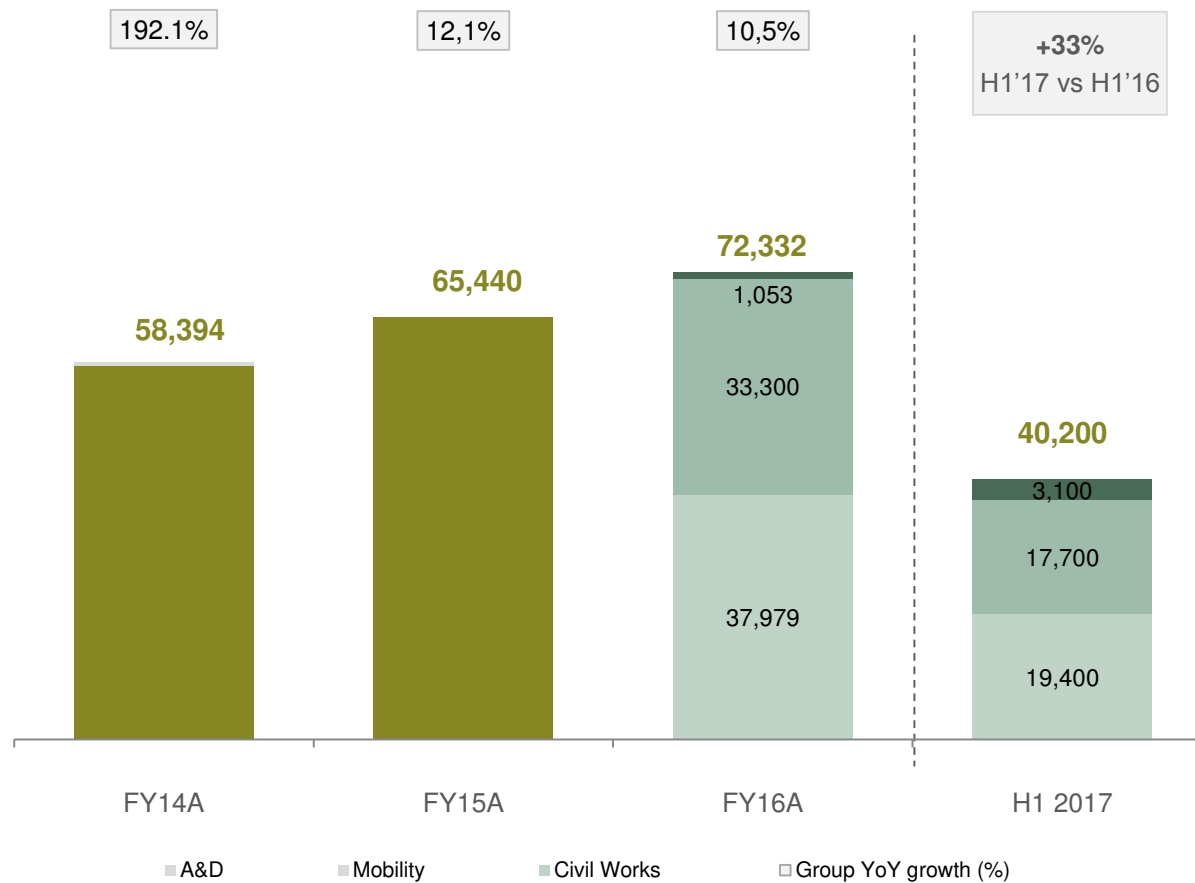
Section V. Appendix: Business Units Detailed Overview

Revenues

During the last four years Carbures experienced a high revenue growth (CAGR of +53%) mainly driven by a strategic build-up process and the development of the aerospace & defense business unit

- Carbures' revenues have grown at a CAGR of c.53% since 2013.
- This increase in revenues is partly due to the M&A strategy that the Company has carried out during 2013 and 2014.
- This M&A build-up allowed Carbures to develop its core competencies in three business lines and further consolidate its international presence.
- A&D was the original activity of the Group. As of FY16 A&D has c. €38m in revenue and is expected to grow fast due to the Company's expansive pipeline.
- Mobility, which was mainly set up in 2014, has a strong footprint due to the acquisition of Mapro.

Consolidated Revenue Evolution (€k)

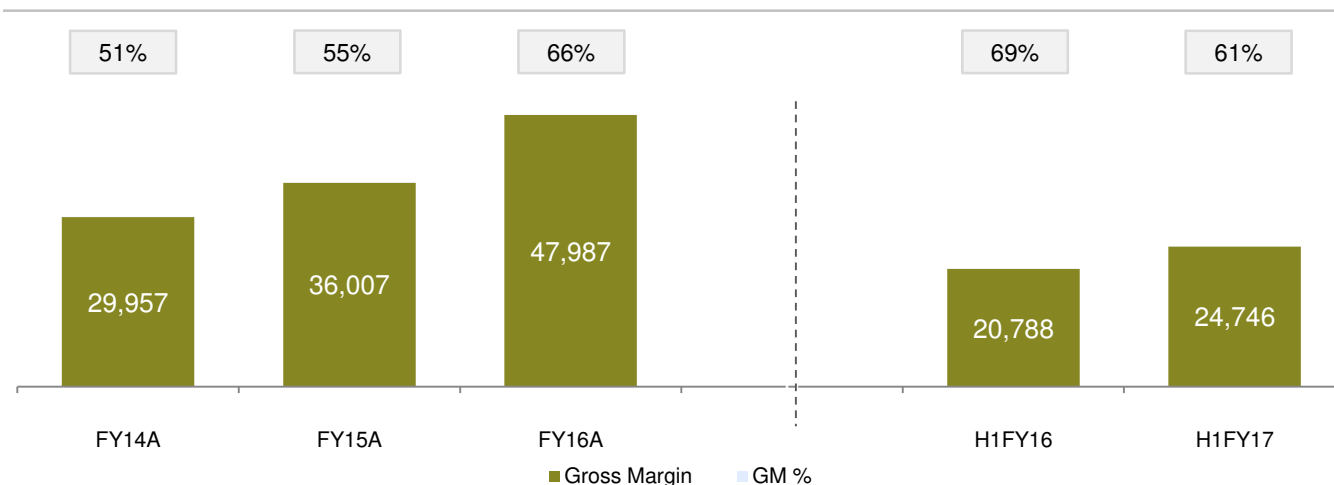


EBITDA

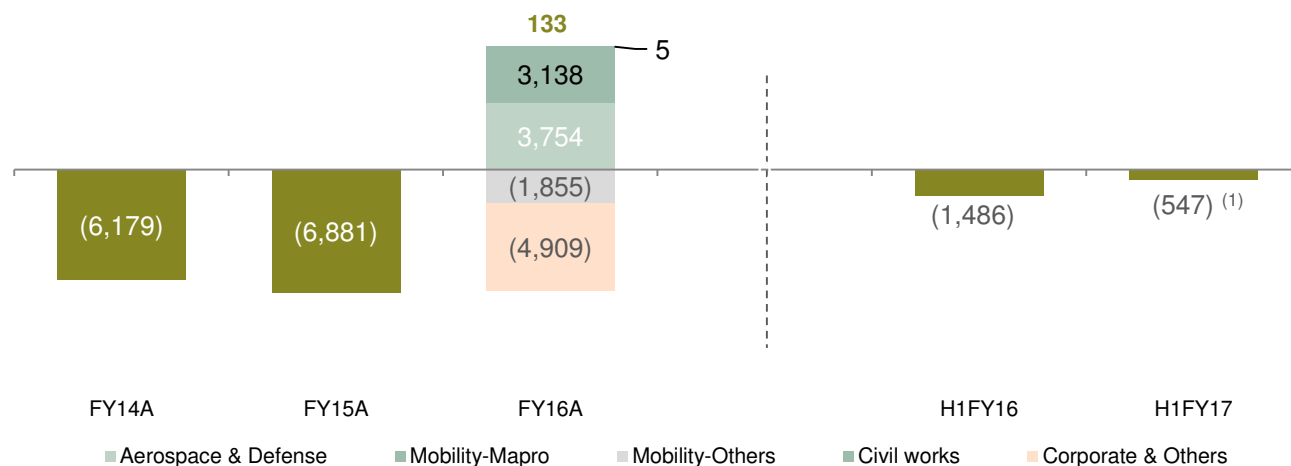
Historical EBITDA figures are not representative of the Company's recurrent operations as there has been some extraordinary expenses incurred during these years

- This historical EBITDA is not representative as includes extraordinary non-recurring expenses due to the financial and operating restructuring processes carried out in the past
- FY 2016 was the inflection point, where the Company delivered positive EBITDA
- The Company expects to rise up the average occupation ratio of its plants in the coming years, with the significant positive impact in EBITDA
- Corporate reorganization carried out in order to adjust non-profitable businesses and better absorb the potential synergies among activities.

Consolidated Gross Margin Evolution (€k; %)



Consolidated EBITDA Evolution (€k; % / Revenue)



Note: Historical financial figures presented under Spanish GAAP.

(1) Recurring EBITDA does not include non-recurring expenses associated with the operational restructuring and refinancing processes carried out in the first half of 2017, costs associated with the project to be listed on the Madrid Stock Exchange and other results associated with companies that are being taken out of the consolidation perimeter due to the operational restructuring carried out

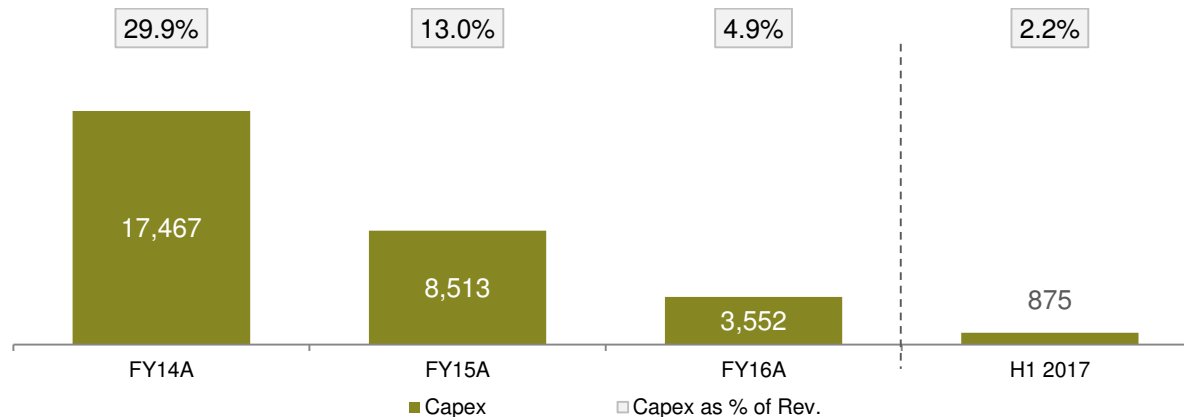
Working Capital & Capex

During the last four years Carbures has invested over c.€30m in the upgrading and expansion of its facilities in order to support future growth

Capex

- It mainly refers to its aerospace facilities located in Jerez (Spain) and Harbin (China), as well as its mobility facilities located in Burgo de Osma (Spain) and the manufacturing line of RMCP and RTM.
- At the end of this well-thought out capex program, the Company has available high capacity in its production facilities, which can accommodate the forecasted future growth.

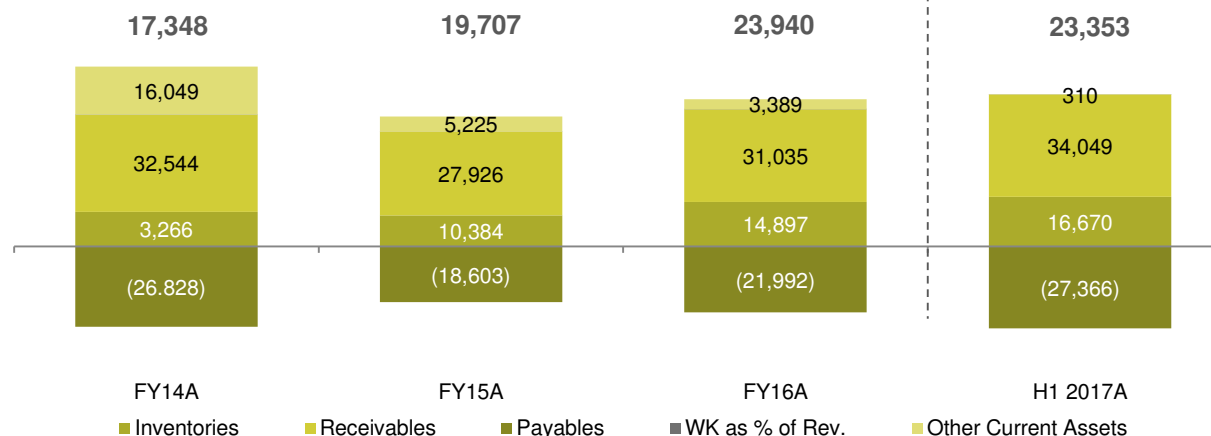
Consolidated Capex Evolution (€k; %)



Net Working Capital

- Net working capital has remained stable over the period analyzed - c. 30% of revenue.
- The working capital is high due to the payment policy of Mapro - the Company pays its suppliers on a monthly basis while they receive the money from their clients upon delivery of machines.

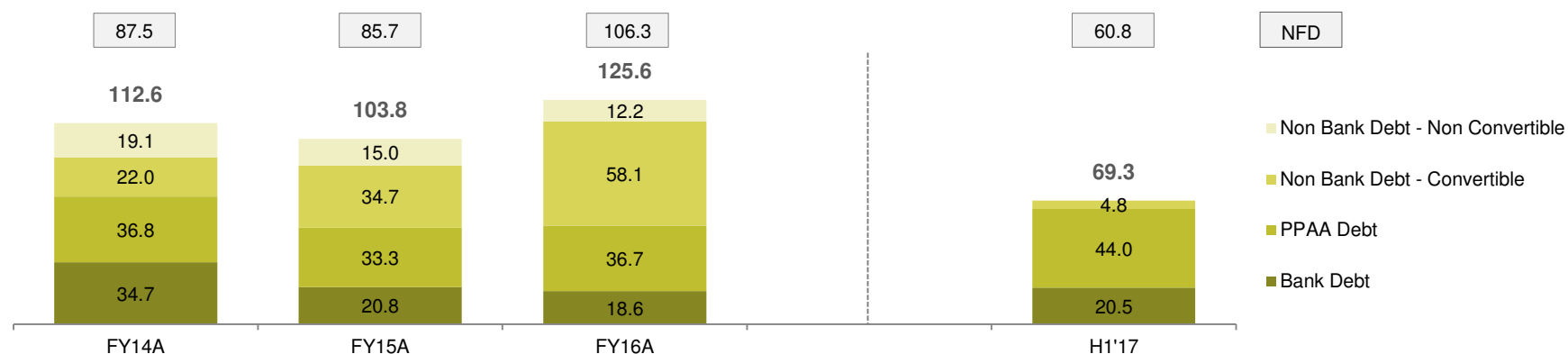
Consolidated Net Working Capital (Balance Sheet) (€k)



Net Financial Debt - Evolution

During 2017, the Company has significantly reduced its net debt during 2017 to reinforce its financial structure

Debt Evolution (€M; %)



Bank debt (c.29% of total debt)

- €14m correspond to the syndicated loan granted
- Other bank debts are related with several credit lines and leasings

Debt with PPAA (c.64% of total debt)

- The debt with Public Administrations are mainly low cost financing provided by government institutions or policy banks:
 - Programs (AVANZA, REINDUS, etc.) for promotion of industrial production and research activities granted by various government institutions including MEIC, EIB, MINETUR, CDTI, and CTA
 - The majority are long term (7 years) loans with variable interests rates, with minor portion zero interest rates debts

Other (c.7% of total debt)

- Non Bank debt – Convertible refers to a loan with “Anangu”

Section I. Company Overview

Section II. Market Overview

Section III. Key Investment Highlights

Section IV. Financial Highlights

Section V. Appendix: Business Units Detailed Overview



A&D - Introduction

Carbures A&D specializes in providing high value-added services such as composite structural design and analysis, composite manufacturing and mechanical engineering support to the principal players in the aerospace industry

- Carbures Aerospace and Defense specializes in the i) design and analysis ii) manufacturing and iii) mechanical engineering of composites using different technologies.
- The Company works with the main aerospace industry players including Airbus, Sabca, etc. The Company is currently negotiating an important contract with Boeing.
- Carbures has a growing manufacturing business mainly attributed to the composite structure parts supplies to all major Airbus programs including A320/A330/A340/A380/A320Neo/A350/C295/A400m. It operates facilities in Spain and China to cater to the needs of Airbus internationally.
- Carbures has an engineering division which provide strong support to the manufacturing activities as well as separate engineering services to key aerospace industry players with the following capabilities:

Equipment and Systems

- On-board electronic equipment
- Sensors, actuators and indicators
- Ad-hoc tests tooling/systems
- Cockpit control units
- Harnesses
- Consoles
- Embedded software
- Communication systems (data-links)
- RDI Projects
- Specific application equipment: signal treatment, power electronic, frequency conversion, etc.

Maintenance Repair and Operations

- Maintenance Service for Test Means for A400M and A330 MRTT.
- Maintenance plans for:
 - Engineering equipment
 - Test Means
 - Test infrastructure
- Laboratory service and test means dispatching (FAL A400M).
- Support service for test means. First-level support to the both test means and infrastructure as well as the analysis and second level scaling.

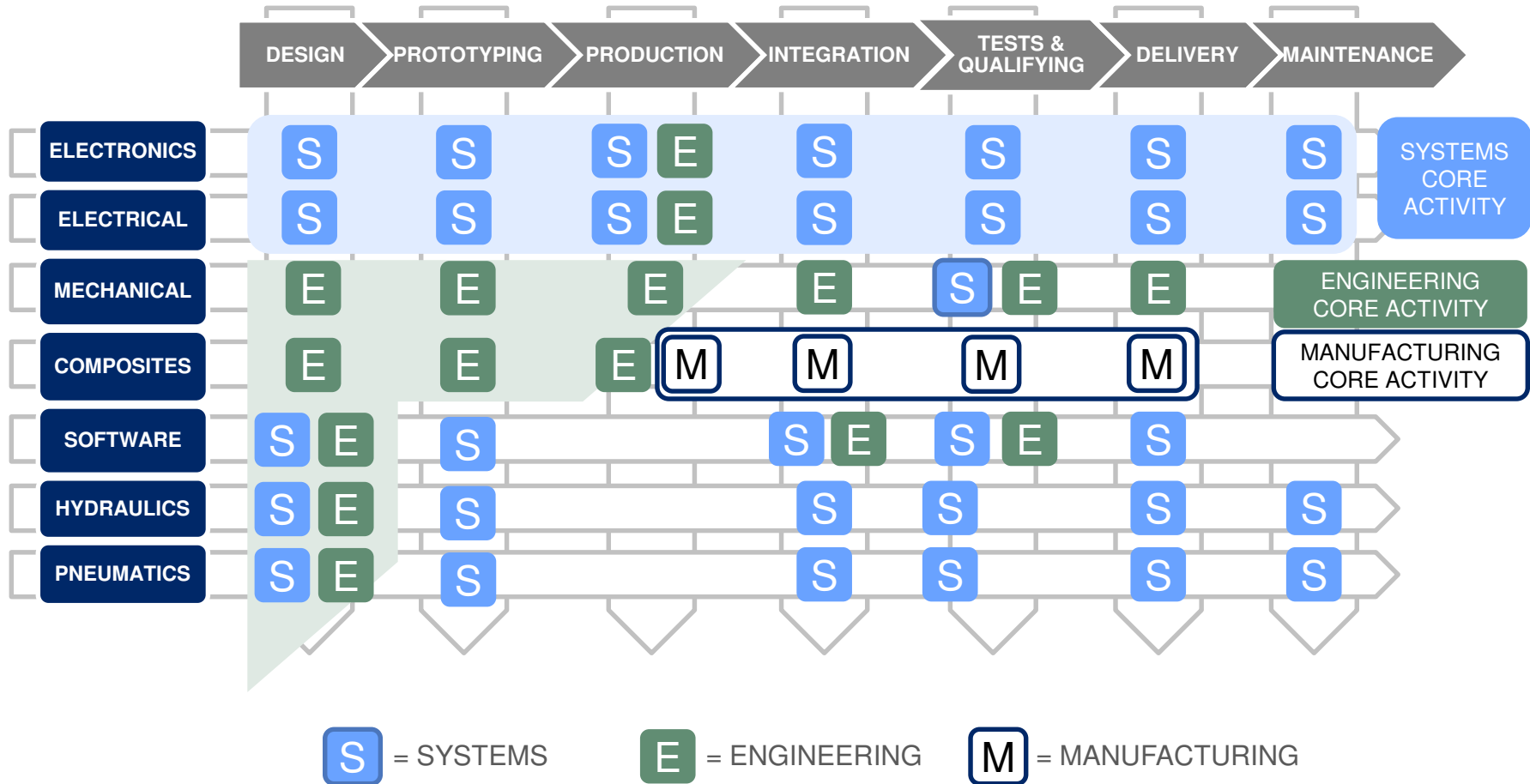
Engineering Services

- Design:
 - Aerostructures
 - Systems
 - Tooling
- Manufacturing:
 - Assembly and installation processes
 - Systems
 - Electrical development
 - Composites development

A&D - Key Industrial Applications



Carbures Aerospace and Defense has considerable know-how over a wide range of industrial applications of composite technology in the realms of manufacturing, engineering and systems



A&D - Manufacturing – Main Production Programs



The Company is participating in the supply of aerostructure components for all Airbus aircrafts models including the A320, A320Neo, A-400-M, C-295, A330 MRTT, A350, A380 and A330-340

Aerospace - Civil

A320-A320 Neo

- Omega
- Oil tank door "OTD"
- HTP Trailing Edge Covers

A330-340

- HTP Naca Cover and Hand Holes

A380

- Viga
- Structure Panels Belly Fairing
- Oil tank door "OTD"
- VTP Dorsal Fin
- HTP Karman
- HTP Spar Stiffeners
- HTP Angles & Clips
- 519.1 Structure LH&RH
- S19.1 Tailcone & equipped elements
- S19.1 Maintenance door LH&RH
- MLGD Omegas & Stiffeners
- Main WLGD Covers & Central Beams

A350

- Aerolia L/Stringer
- Aerolia Angles
- Aerolia Stabs
- Aerolia Counter Splice
- Aerolia Shims
- Aerolia Shovels

Aerospace - Defense

A340M

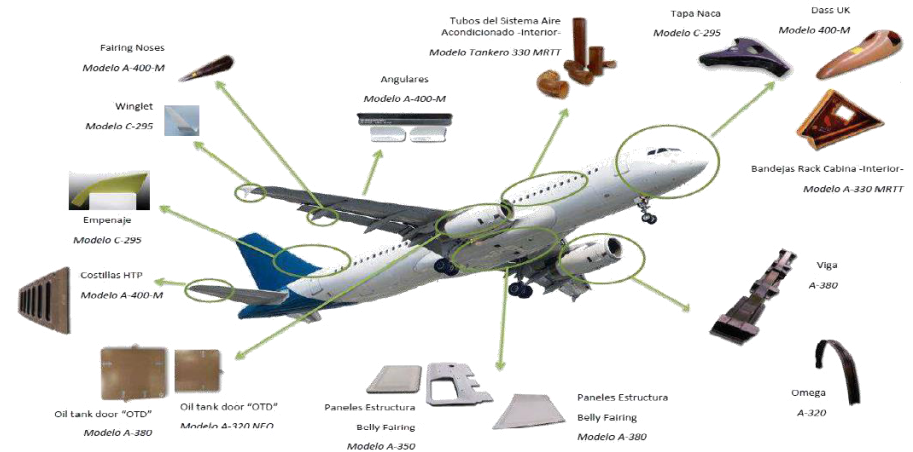
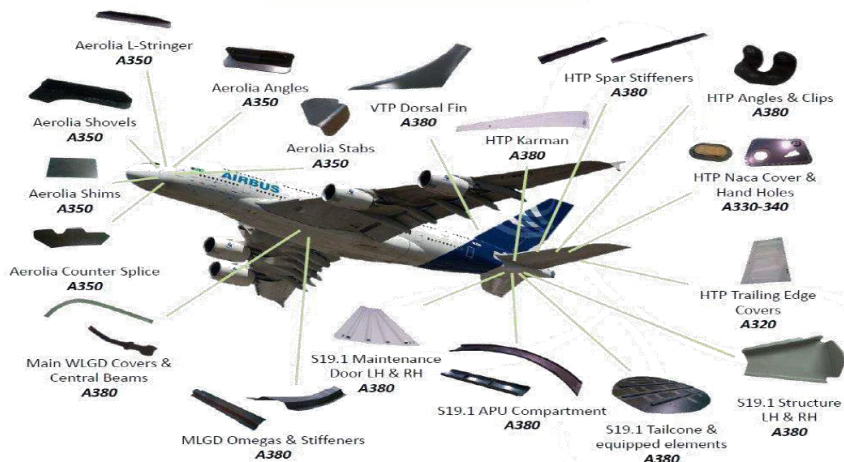
- Fairing Noses
- Angular
- Dass UK
- HTP Ribs

A400 / A330 MRTT

- AC system tubes
- Interior Rack trays
- Fuel stick control

C295

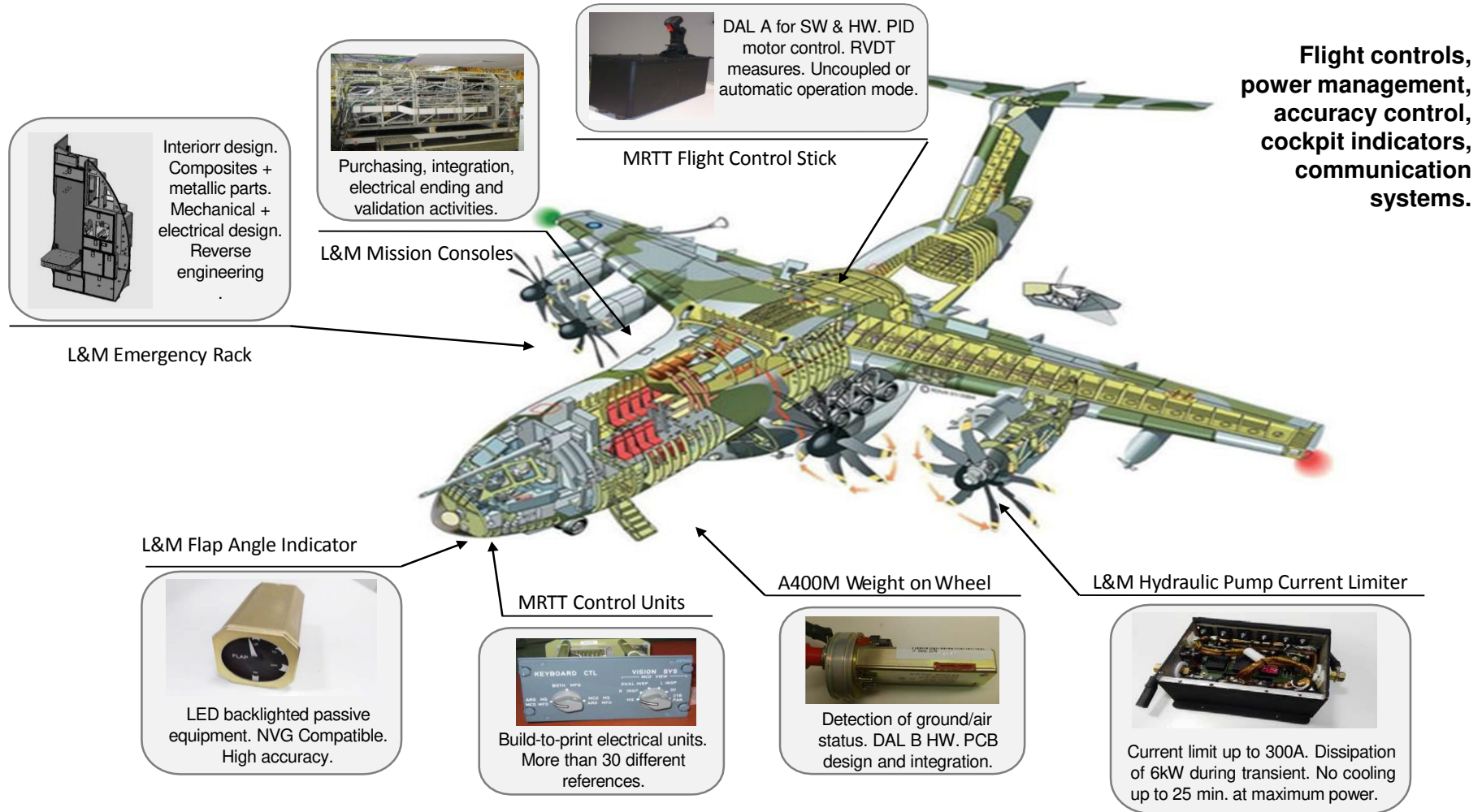
- Winglet
- Naca Top
- Empennage



A&D - Engineering – Activities



Carbures has a industrial site in Seville (Aerópolis) specialized in the engineering activities for the aerospace sector: i) Systems Manufacturing Center, ii) Prototypes Development & 3D Printing and iii) Electrical Components Assembly

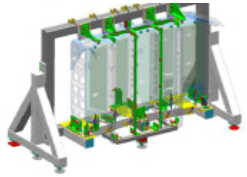
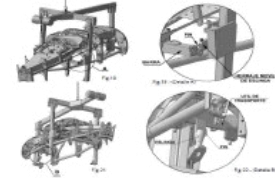
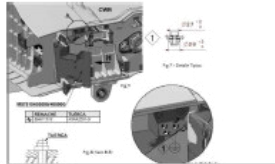


A&D - Engineering – Main Services



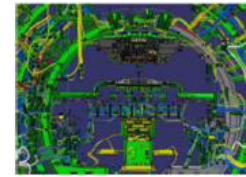
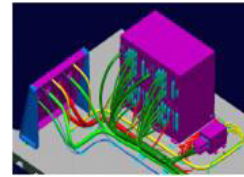
Assembly & Installation Process

- Generation of assembly processes, from initial concept to setting up workshop process.
- Improvements via lean manufacturing, adding value analysis, generation of new processes and balancing operations and performance of SOI's.
- Industrialization projects: preprocessing, definition and implementation of manufacturing documentation, support to workshop and design.
- Development of graphic work instruction.
- Support to aircraft installation and assembly.



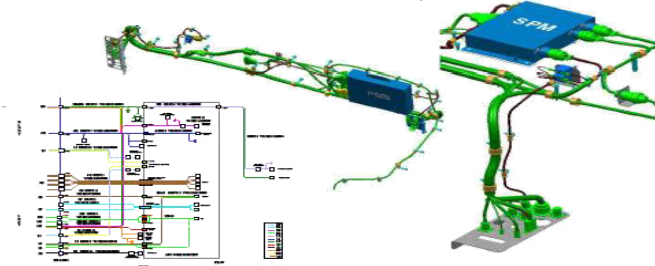
System

- Functional tests for Mechanic, Fluid MV, and PWP.
- Support & AIMS tuning.
- Test Tooling for Mechanic, Fluid, MV and PWP.
- Maintenance functional test list.
- Maintenance and overhauling of internal procedures.
- Management System Engineering.
- Test Records Management.
- Integration, test specification & simulation.
- Design and manufacturing of test equipment.



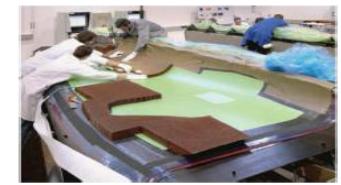
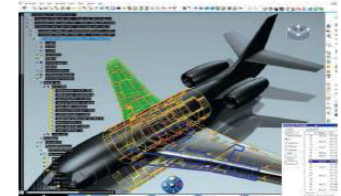
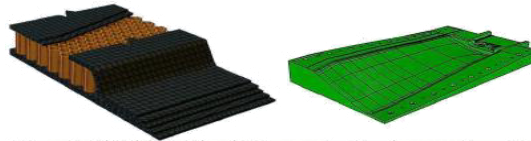
Electrical Development

- Analysis and design of deck lines, including implementation of design changes.
- Manufacturing documentation development (wiring, decks, central and laying decks).
- Configuration control & manufacturing product Structure and modifications management.



Composites Development

- Processes and tolling concept development
- Processes lead time analysis.
- Performance of all related manufacturing documentation.
- Test specifications.
- Implementation and maintenance of product structure.
- Rework and assembly processes maintenance.
- Structural clashes analysis, tolerance and interchangeability management.



Mobility - Introduction

Carbures Mobility is a Tier 2 auto-parts supplier that specializes in light-weighting solution via its know-how in carbon fiber composites. It is ready to serve high volume production demand with its proprietary and patented technology

General Description

- The Mobility division aims to be a leader in advanced technology in light weighting solutions via composite vehicle structures with a Tier 2 supplier position within the automotive, and rolling stock manufacturing industries.
- The Mobility division has 2 main streams of work, including supplying automotive and railway structure parts, as well as sale of machinery products and services, with a positioning of global Tier 2 player
- Being a first mover in the industry, Carbures possess the engineering capacity for product development, technology application and industrialized production including both low and high volumes with highest quality and competitive costs.
- Carbures promotes a comprehensive solution for the development of carbon fiber friendly parts for automotive vehicles, with reference products including:
 - Prototypes:** 1) CF hybrid rim; 2) CF hybrid crossbeam etc.
 - High performance parts:** Supercar CF chassis and parts.
 - Exterior parts:** 1) Electric bus exterior 2) Motorcycle exterior, etc.
 - Rolling stock:** 1) Evacuation door system 2) Driver desktop 3) GFRP parts.
- The major upside of automotive division is the take-off of high-volume production in accordance with the industry-wide trend of light-weighting in automotive vehicle manufacturing. The Company has its own RMCP technology to carry out the industrialized CFRP production.

Automotive



OEM & Tier 1 Supplier in the Automotive Market Worldwide

Main Products & Services



Engineering Services



Body in White



Bodywork / Exteriors



Interiors



Powertrain

Main Clients



Machinery



OEM & Tier 1 Supplier in the Automotive Market Worldwide

Main Products & Services



Electric Power Steering



Seats & Mechanisms



Safety Systems



Brakes



Powertrain



Electric Drives & Electronics

Main Clients

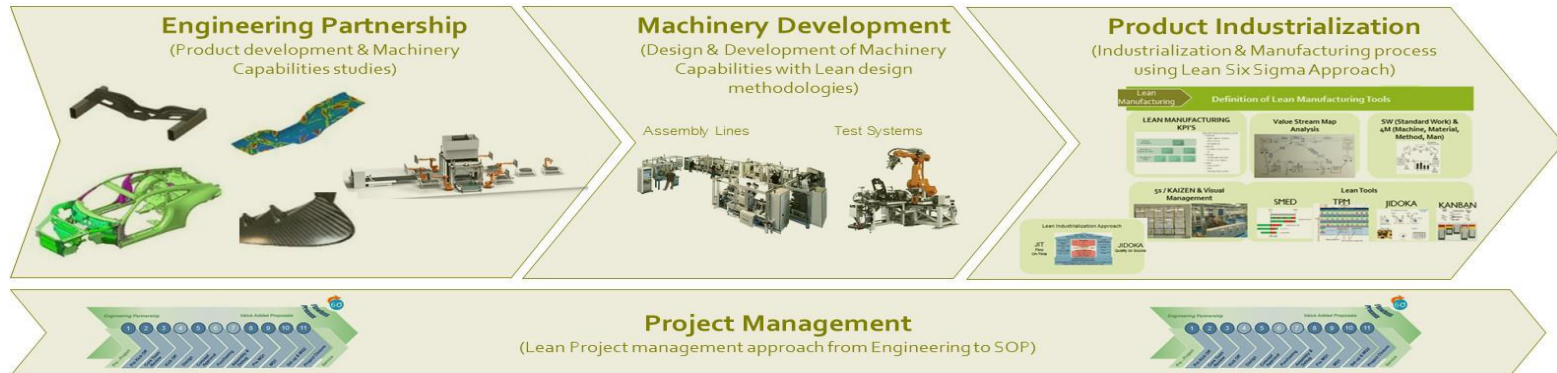


Mobility - Machinery



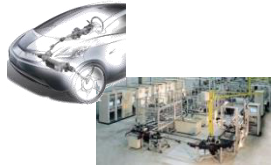
We Design, Manufacture and Assembly depending on Customer's needs. We collaborate with the customer since early stages of the product development

Differential Aspects



Where we focus...

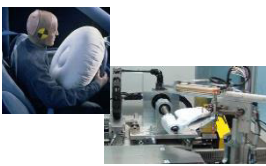
Electric Power Steering



Seats & Mechanisms



Safety Systems



Brakes



Powertrain & Thermal



Electric Drives & Electronics



...what we do

Assembly and Test Lines



Assembly Lines



Test Equipment (Laboratory)



Test Equipment (Production)

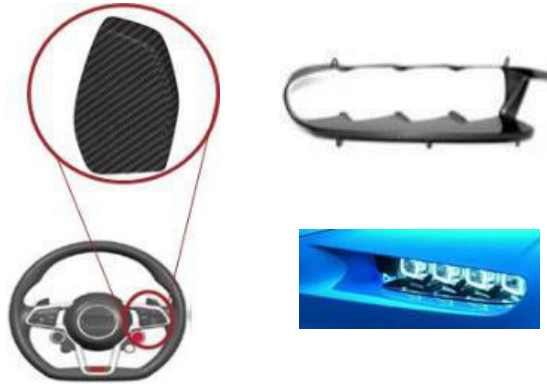




Mobility - Automotive

Carbures Mobility holds large experience in production of composite components for prototypes/small/medium/long series and industrialization. Carbures is expert in the design and manufacturing of tooling for low volume production

Low Volume Composite Production



High Volume Composite Production

RMCP Line



HP-RTM Line



Key material benefits vs metals

- 70% weight reduction vs Steel
- 30% weight reduction vs Aluminum
- Improved Chemical Resistance (Corrosion Free)
- Improved Thermal and Electrical Conductivity vs metals
- Low coefficient of thermal expansion
- Flexible Design (Different Thicknesses)
- Integration (Part count reduction)
- High Fatigue life compared to lightweight metals
- High Performance in Stiffness & Strength



Civil Works – Introduction

Carbures Civil Works is a pioneer in applying the composite technology in engineering and construction projects in the civil works sector to expand the spectrum of the industrial application of carbon fiber composites

General Description

- Formerly known as Pypsa, Carbures CW is a civil engineering company with extensive experience in engineering and construction supervision services in industrial (Oil&Gas, Mining, etc.), infrastructure, maritime projects.
- Post acquisition in 2014, Pypsa was renamed as Carbures Civil Works, shifting its focus to introducing composite materials into the construction projects given its low weight and high resistance advantage over other traditional construction materials (concrete, steel, wood, etc.).
- Since then Carbures Civil Works has been engaged in the development of composite material based infrastructure projects (port dolphin, bridge structure, etc), and CFRP application to building refurbishment to reduce maintenance life cost and disruption.
- The future growth of the Company could be based on several potential drivers:
 - ✓ Traditional EPC: Regaining former contract volume size with Pemex.
 - ✓ GFRP applications: Penetration of GFRP in infrastructure projects.
 - ✓ CFRP development: Newly developed CFRP projects for high performance construction works.

Why composites?

- Highly resistant and light:
 - ✓ Easy to transport.
 - ✓ Low installation costs.
 - ✓ Savings in support structures.
 - ✓ Specific high resistance in long-life fatigue components.
- Corrosion Resistance:
 - ✓ Maritime and offshore structures.
 - ✓ Mining industry and pipeline equipment.
 - ✓ Highly corrosive chemical environments.
- Flexible design: Freedom to create almost any form and to imitate any surface finish.
- Low conductivity: Composites are good insulators; they do not conduct heat or cold easily. GRFP has low electrical conductivity.
- Extremely durable: Structures made from composites have a long useful life and require little maintenance.

Civil Works – Sectors and Services



Carbures' Civil Works division mainly focuses on offering engineering, supervision and studies services in projects for Industrial, Infrastructure and Maritime end markets among others

Markets Served

Industrial	▪ Oil&Gas	▪ Pulp&Paper
	▪ Mining and Cement	▪ Pharmaceuticals
	▪ Metalworking	▪ Food
	▪ Metallurgy	▪ Tourism
	▪ Energy	
	▪ Manufacturing	
Infrastructure	▪ Large dams	▪ Environment Impact
	▪ Urban building	
	▪ Urban roads	
	▪ Water and sewage	
	▪ Public transport system	
	▪ Energy	
Maritime	▪ Ports	
	▪ Marinas	
	▪ Wharfs	

Service offered

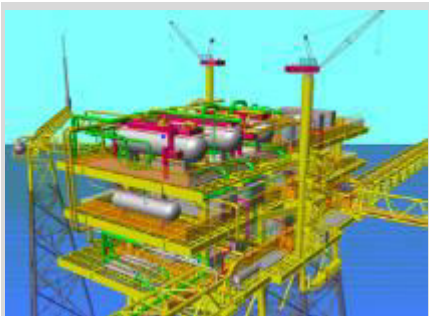
Engineering	Site Supervision	Studies
<ul style="list-style-type: none"> ▪ Civil-Structural ▪ Process ▪ Mechanical ▪ Pipelines ▪ Flexibility ▪ Electrical ▪ Architecture ▪ Instrumentation and Control ▪ Fire suppression systems ▪ Project control ▪ Information technology 	<ul style="list-style-type: none"> ▪ Construction management ▪ Supervision ▪ Procurement ▪ Health and Safety ▪ Quality control ▪ Scheduling ▪ Estimates and Costs ▪ Technical support ▪ Administrative support ▪ Equipment tests ▪ Operation and Start-up ▪ Environmental 	<ul style="list-style-type: none"> ▪ Topography ▪ Photogrammetry ▪ Survey – Laser scanning ▪ Geotechnics ▪ Hydraulics ▪ Hydrologics ▪ Feasibility ▪ Master plans ▪ Ecology ▪ Environmental impact ▪ Risk

Civil Works – Expertise and Capabilities



With more than 30 years working in the infrastructure engineering service sector, the Civil Works division has a reputable historical track record and extensive project experience, which could lead to many future opportunities

General Experience		Historical Track Record		
<ul style="list-style-type: none">38 years in the engineering market.314 engineering project contracts and 25 construction supervision contracts.Participation in more than 1,240 projects of engineering and construction supervision and production of structures.Over 24 million engineering project man-hours and over 8 million work supervision contract man-hours.Developing 3D models (MEBIS and METIS) since 1995.+70 engineers with growth possibilities according to customer demand.Qualified staff with avg. 17 years of experience and 7 years of seniority, trained in ultimate generation Systems and Technologies.		Sector	Contracts (#)	Man-Hours (khs)
		Industrial	150	15,897
		Agricultural	20	1,241
		Maritime	18	4,386
		Infrastructure	151	11,214
		Total	339	32,738



PB-ZAAP-C Platform



Akal-C Platform



Road Infrastructure



Bridge over the River Santiago, El Cajón, Nayarit.

Civil Works – Reference Products

Carbures has been a pioneer in putting the composite technology into real civil works uses via multiple exemplary executed projects

Fuerteventura

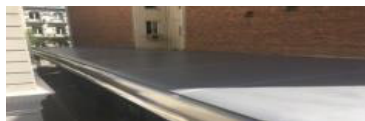
- Competitive composite solution for maritime dolphin structures.
- In collaboration with Acciona built for port of Fuerteventura.



- ✓ Less weight
- ✓ Less space
- ✓ Lower budget
- ✓ Less time

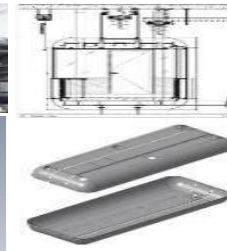
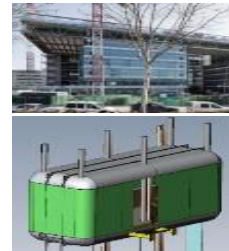
Norman Foster

- Composite solution for roof-top structure.
- Hand-picked by world leading architecture firm Norman Foster.



Banco Popular

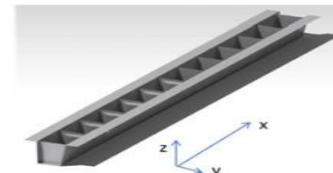
- GFRP covered cabin for auditorium transmission station.
- In collaboration with Ayala Arquitectos for Banco Popular.



- ✓ Industrial application of low conductivity feature of GFRP

DACOMAT

- 8m length beam with damage controlled composite materials.
- Pan-European R&D program with 12 leading firms/Institutions.



- ✓ Vacuum Bag Infusion

2018

Thank you!



Carbures

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