



# **Avio S.p.A.**

Registered office in Rome, via Leonida Bissolati No. 76  
Share Capital Euro 90,964,212 fully paid-in  
Rome (RM) Companies Registration Office No.: 09105940960

## **2019 HALF-YEAR REPORT**

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## HIGHLIGHTS

### **Net revenues<sup>(1)</sup>**

Euro 189.0 million (+5.7% on H1 2018)

### **EBITDA**

Reported: Euro 16.1 million (+11.0% on H1 2018)

### **EBIT**

Reported: Euro 8.1 million (+5.4% on H1 2018)

### **Profit before taxes**

Euro 7.9 million (+Euro 0.5 million on H1 2018)

### **Net Profit**

Euro 7.1 million (+Euro 0.9 million compared to the first half-year of 2018)

### **Net financial position <sup>(2)</sup>**

+Euro 20.4 million (+Euro 49.1 million at December 31, 2018)

### **Investments**

Euro 9.0 million (Euro 6.4 in H1 2018)

### **Backlog <sup>(1)</sup>**

Euro 744.9 million at June 30, 2019 (Euro 877.4 million at December 31, 2018)

### **Research and development**

costs of Euro 76.9 million, net of pass-through costs <sup>(1)</sup> incurred in H1 2019, equal to 40.7% of revenues net of pass-through revenues <sup>(2)</sup> for H1 2019 (costs of Euro 74.3 million, net of pass-through costs incurred in H1 2018, equal to 41.6% of revenues net of pass-through revenues for H1 2018)

### **Employees at period end**

910 at June 30, 2019 (838 at December 31, 2018)

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<sup>1</sup> For the definition of "pass-through" revenues and costs, reference should be made to the "Group results and equity and financial position" section.

<sup>2</sup> The Net Financial Position at June 30, 2019 reflects the adoption of IFRS 16, applied for the first time by the Group from January 1, 2019, resulting in the recognition of financial liabilities of Euro 6.6 million.

## LETTER TO THE SHAREHOLDERS

### LETTER TO THE SHAREHOLDERS

Dear Shareholders

In the first half of 2019, one Vega flight, the fourteenth consecutive successful Vega launch - putting into orbit the "PRISMA" satellite of the Italian Space Agency for Earth observation - and two Ariane flights took place.

The qualification tests of the new P120C motor, of the first stage of the Vega-C launcher and of the new Zefiro 40 motor and the second stage of the Vega-C launcher were successfully held. These tests are major milestones for the Vega C launcher, whose maiden flight is scheduled for the first half of 2020.

During the period, contracts were signed with Viasat, OneWeb and the ESA for missions with the new Ariane 6 launcher, highlighting the strong commercial response to the new European launcher for medium and geostationary orbits, for which Avio will produce the new P120C motor.

In January, a loan contract for Euro 10 million was signed with the European Investment Bank, in addition to the original Euro 40 million loan signed in October 2017 at the same conditions, which will further support the planned development of new technologies in view of the offering of the new Ariane 6 and Vega C launchers and the expansion of industrial capacity at the Colleferro facility required to meet the company's production volume targets for the coming years.

In April, the third Shareholders' Meeting subsequent to the company's stock market listing of April 2017 approved for the second consecutive occasion the distribution of dividends, in the amount of Euro 0.44 per share - up 16% on the previous year.

New orders were acquired in the period for approx. Euro 60 million, while subsequent to period end additional contracts were signed for approx. Euro 80 million, mainly for the entry into production of the P120C motor for the first batch of the new Ariane 6 launcher.

The H1 2019 results were strong, improving on the same period of the previous year and are in line with expectations. Net revenues amounted to Euro 189.0 million (Euro 178.8 million in H1 2018), while Reported EBITDA was Euro 16.1 million (Euro 14.5 million in H1 2018).

The net financial position at June 30 was a cash position of Euro 20.4 million (Euro 26.9 million on a like-for-like in view of IFRS 16 compared to Euro 49.1 million in December 2018), reflecting normal working capital seasonality and the payment of dividends in May.

Subsequent to period end, on July 11, 2019, for the first time in the history of the Vega launcher - after 14 consecutive successful launches - an anomaly occurred which led to the premature conclusion of the fifteenth mission.

The Independent Investigatory Commission appointed by the ESA and Arianespace in order to ascertain the possible causes of the anomaly issued its conclusions on the possible causes, identifying that most probable as a thermal-structural problem in the area of the front cap of the Zefiro 23 motor, indicating the corrective measures which should be taken, providing their recommendations to permit the restart of Vega launches by the first quarter of 2020, in compliance with the applicable safety and reliability requirements.

Avio is already working on implementing the corrective measures according to the timeframe indicated by the Commission in order to return to flights in the first quarter of 2020.

Finally, on August 2, the Board of Directors approved the launch of the treasury share buy-back programme, in execution of that approved by the Shareholders' Meeting of April 26, 2019. The programme is executed through purchases by an appointed intermediary, Equita SIM S.p.A., which will fully independently adopt decisions with regards to purchases.

On September 12, 2019, following the purchases made, Avio S.p.A. holds 45.050 treasury shares, equal to 0,17% of the number of shares comprising the share capital.

Giulio Ranzo  
Chief Executive Officer and General Manager  
Avio S.p.A.

# **DIRECTORS' REPORT**

# THE AVIO GROUP

## PROFILE

The Avio Group (hereafter in this Directors' Report "Avio" or the "Group") is an aerospace sector global leader. The experience and know-how built up over more than 50 years lies behind Avio's embodiment of excellence in terms of Launch Systems, solid, liquid and cryogenic propulsion and military systems propulsion.

The Group directly employs in Italy and overseas approx. 900 highly-qualified personnel at the main Colleferro facilities on the outskirts of Rome and at other locations in Campania, Piedmont and Sardinia. Additional operating sites are located overseas (in France and French Guyana).

The Group is currently involved in the Launch Systems and space propulsion sector, particularly with regards to the design, development, production and integration of:

- space transport systems (Vega Launcher and future developments);
- solid and liquid propulsion systems for launchers (Ariane 5 Launcher and Ariane 6 Launcher);
- solid propulsion systems for tactical missiles (Aspide, Aster, CAMM-ER, MARTE);
- liquid propulsion systems for satellites;
- new low environmental impact propulsion systems;
- ground infrastructure for launcher preparation and launch.

The current **Launch Systems** with Avio components are:

- Ariane 5 for the launch of up to 10-ton satellites into Geostationary Earth Orbit (36,000 km). Since the end of the 1980's, Avio has supplied the oxygen turbo-pump boosters (solid propulsion motors) for the Vulcain engine;
- Ariane 6 currently under development. The launcher has two distinct configurations for feasible missions, guaranteeing greater payload flexibility. In particular, the A62, with two P120C solid propulsion boosters, and the A64, with four P120C solid propulsion boosters, will be used for both GEO (geostationary) satellite positioning, at an altitude of 36,000 km, and other kinds of mission, such as launches to LEO orbits, SSO (sun-synchronous) polar orbits, MEO (medium earth) orbits, 4.5 ton satellites to GEO orbits, and 20 ton satellites to LEO orbits. In this context, Avio supplies solid boosters for both Ariane 6 configurations, as well as two oxygen turbopumps for the liquid stages of the Vulcain 2 and Vinci engines;
- Vega, for the launch of up to 2-ton satellites into Low Earth Orbit (between 300 and 2,000 km above sea level). Since 2000, Avio has been developing and implementing the Vega program for the European 2,000kg payload satellite launcher, which successfully completed its first qualifying flight in February 2012, 5 flights in December 2015 under the VERTA contract for completion of the qualification process, and its first commercial flight in 2016. The success of this product has allowed Italy to enter the extremely exclusive group of countries capable of developing and producing its own space launcher;

- Vega C, the latest evolution of Vega, is a launcher under development as part of the European Space Agency's space program. Vega C is designed for a greater payload than the Vega and at the same time optimizes production costs thanks to the sharing of the new first stage (P120C) with Ariane 6.

Regarding **tactical missiles**, Avio participates in the major national and international programs. These include:

- ASTER, ground-to-air weapon system;
- CAMM-ER, ground-air weapon system currently under development;
- MARTE, helicopter and ship launched anti-ship weapon.

In the field of **satellite propulsion**, Avio has developed and supplied the ESA and ASI with propulsion subsystems for the launching and control of several satellites, including the latest SICRAL, Small GEO and EDRS-C satellites.

The Group operates in the following business lines:

- **Ariane**

Ariane is a space program for ESA-sponsored GEO missions, in which ArianeGroup ("AG") is the prime contractor and Avio operates as a subcontractor for the production of the P230 solid propulsion boosters and the liquid oxygen turbo pump (LOX) for the Vulcain 2 engine. Avio is also the subcontractor for the next-generation Ariane 6 launcher scheduled for 2020, for which Avio, through its subsidiary Europropulsion, is developing and will supply (i) the solid propellant P120C engine, (ii) the liquid oxygen turbopump for the Vulcain 2 engine and (iii) the liquid oxygen turbopump for the Vinci engine.

- **Vega**

Vega is a space program for LEO missions, whose development has been funded by the ESA, with mainly Italian funding, and for which the Group is the prime contractor for the production and integration of components for the entire launcher and for the production of the solid propulsion engines P80, Zefiro 23 and Zefiro 9 and of the AVUM liquid propulsion module. The Group also plays the role of the ESA's prime contractor for the development of the new generation of Vega Consolidated (Vega-C) and Vega Evolution (Vega-E) launchers, scheduled for 2019 and 2024 respectively. The Group is responsible for the development and production of these entire launchers, in addition to (i) the development of the solid propulsion engine P120 C (first stage to replace the current P80), which is constructed in synergy with the Ariane program 6), (ii) the Z40 solid propellant engine (second stage to replace the current Z23) and (iii) an oxygen-methane liquid engine for the upper Vega-E stage.

- **Tactical Propulsion**

Avio is responsible for the design and production of the following products:

- Aster 30 - the booster and sustainer motors, actuation system (TVC) and aerodynamic control surfaces (fins);

- Aster 15 - the sustainer motor and aerodynamic control surfaces (fins);
- Aspide propulsion units;
- Marte sustainer.

Regarding development programs:

- CAMM-ER - development of the booster and single stage sustainer motor, wiring and aerodynamic control surfaces (fins);
- Aster 30 MLU - development of the new Aster 30 booster to replace the current one in production, from 2021, solving REACH and obsolescence issues.
- E TVC (Electromechanical Trust Vector Control), a drive control system through the electromechanical system which will replace the current hydraulics to lengthen the maintenance times and operating life of the Aster missile.

With net revenues in the first half of 2019 of Euro 189.0 million and Reported EBITDA of Euro 16.1 million, the Group currently occupies a leading position in the Italian and European space industry, substantially supported by its high degree of competitiveness - drawing over 98% of its revenues from overseas.

The highly technological content of Avio's operations has required research and development spend - for the portion principally commissioned by the ESA, ASI and Member State ministries - accounting for approx. 40.7% of net revenues in H1 2019. These activities were carried out both in-house and through sub-contractors and a network of laboratories and partnerships with some of the leading domestic and international universities and research centres.

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## CORPORATE BOARDS AND COMMITTEES

### *Board of Directors*

The term of office of the Board of Directors is three years, concluding with approval of the 2019 Annual Accounts.

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Roberto Italia	Chairman
Giulio Ranzo	Chief Executive Officer (c) (d)
Donatella Sciuto	Independent Director (a) (d)
Maria Rosaria Bonifacio	Independent Director (b)
Monica Auteri	Independent Director (a)
Giovanni Gorno Tempini	Independent Director (b) (c)
Vittorio Rabajoli	Director (a)
Luigi Pasquali	Director (c)
Stefano Ratti	Director (b) (d)

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- a. Member of the Risks Control and Sustainability Committee:
  - b. Member of the Appointments and Remuneration Committee
  - c. Member of the Investments Committee
  - d. Member of the Strategic Activities Committee
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### *Board of Statutory Auditors*

The term of office of the Board of Statutory Auditors is three years, concluding with approval of the 2019 Annual Accounts.

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Riccardo Raul Bauer	Chairman
Claudia Mezzabotta	Statutory Auditor
Maurizio Salom	Statutory Auditor
Maurizio De Magistris	Alternate Auditor
Virginia Marini	Alternate Auditor

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### *Independent Audit Firm*

Deloitte & Touche S.p.A. (2017-2025)

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## RECENT HISTORY

### 1994

The FIAT Group, operating since the early 1900's in the aviation sector, acquired in 1994 BPD Difesa e Spazio, a company founded in 1912 and growing to over 4,000 staff, focused on munitions development and production for Italian and foreign militaries.

### 2000

In 2000, adding to its traditional aeronautical and aerospace activities, the Group, in collaboration with the Italian Space Agency (ASI), established ELV S.p.A. (held 70%) for the complete development and design of a new launcher. In this role, under the auspices of the European Space Agency (ESA), the Group assumed the role of lead contractor for the European launcher VEGA.

### 2006

The Group was acquired by BCV Investments, owned by the private equity fund Cinven (81%), Finmeccanica Group (14%, now Leonardo Group) and other investors (5%).

### 2012

In February, the European space launch system named VEGA, designed and engineered by Avio, was approved. In December, Avio announced the signing of an agreement for the sale of its aeronautical division to General Electric.

### 2013

In May, Avio's new VEGA launcher successfully completed its first commercial flight. On August 1, 2013, Avio sold GE Avio S.r.l., which operated its aeronautic division, to General Electric.

### 2014

In December, the European Space Agency Ministerial Conference of Member States decided to finance the VEGA launcher development program until its completion, including a first rocket stage (the P120 C) to be shared with the forthcoming Ariane 6 launcher, also fully financed.

### 2015

The outcome of the Ministerial Conference of ESA countries, held the previous December 2014, led in August 2015 to the signing of major development contracts for the Vega-C and Ariane 6 launchers. Avio's key role was recognized thanks to its participation in the development program for Vega-C and Ariane 6's shared rocket stage, the P120, and its lead systems engineering role in the VECEP program for the development of the Vega-C launcher. For the first time in the history of the Kourou Space Centre as many as 12 launches were made in one year, including 6 involving Ariane and 3 for Vega.

### 2016 - 2017

In the fourth quarter of 2016, the operation for the acquisition and listing of the Avio Group by Space2 S.p.A., an Italian SPAC listed on the MIV market/SIV segment of Borsa Italiana S.p.A., was initiated.

This operation was completed on March 31, 2017 with the acquisition by Space2, Leonardo S.p.A. and In Orbit S.p.A. (a company formed by a number of Avio managers) of an 85.68% holding in Avio. The remaining investment was already held by Leonardo. On the same date, CONSOB authorised publication of the listing prospectus for ordinary Space2 post-merger with Avio shares on the Italian Stock Exchange. The merger by incorporation with Space2 was thereafter effectively executed on April 10, 2017.

Also on April 10, 2017, Space2 post-merger with Avio, maintaining the name "Avio S.p.A.", was listed on the Italian Stock Exchange's STAR segment.

### 2018

As part of the process initiated by European Space Agency (ESA) member states for new governance of the European launchers sector, in order to transfer to the prime contractors (Ariane Group for Ariane 6 and Avio for Vega-C) the responsibility for commercial exploitation of the new products and the associated risks, and following completion of the accompanying flights for Vega launcher testing, the shareholders of ELV S.p.A. (held 70% by Avio S.p.A. and 30% by ASI) reorganised operations, with development, production and distribution of launchers carried out by the industrial shareholder Avio, while ELV S.p.A. concentrates on the research and development of new technologies and on aviation testing.

Therefore, on March 1, 2018, the subsidiary ELV S.p.A. transferred to Avio S.p.A. the launchers development, production and distribution business unit. Following this reorganisation, the subsidiary ELV S.p.A. took from May 9, 2018 the new name of Spacelab S.p.A., focusing on the research and development of new technologies and space transport product testing.

With regards to the potential benefits from application of the research and development tax credit as per Article 3 of Legislative Decree No. 145/2013 and the related regulatory framework applied to the activities carried out by the business unit sold by ELV S.p.A. to Avio S.p.A., as at the signing date of the final business unit sales contract these overall potential benefits had not yet been precisely established among the parties as the analysis together with the tax consultants was still ongoing, the parties agreed that the tax credit from application of the above rule was to be included in the business unit sold at the signing date of the final contract, while the valuation of the business unit sold and consequently the sales price at the final contract signing date does not take into account the potential overall expected associated benefits. The parties therefore agreed that, on conclusion of the above analysis, by June 30, 2020 the value of the tax credit included in the business unit sold to Avio S.p.A. would be established, in addition to any adjustment of the consideration on the basis of the established potential overall expected benefits.

## BUSINESS AREAS

Core operations: design, development and production of solid and liquid propellant propulsion systems for space launchers; design, development and production of solid propellant propulsion systems for tactical missiles; development, integration and supply of complete light space launchers (VEGA); research and development of new low environmental impact propulsion systems and of satellite tracking control motors.

Main programmes: Ariane, VEGA, Aster, CAMM-ER

Main clients: Arianespace, ESA (European Space Agency), ArianeGroup (previously Airbus Safran Launchers), ASI (Italian Space Agency) and MBDA

Production sites: Colleferro (Rome), Kourou (French Guyana)

## REGION

### ITALY

- (I) (II) (III) Colleferro (Rome), space propulsion
- (II) Villaputzu (Cagliari), space propulsion
- (III) Airola (Benevento)

### EUROPE

- (IV) Suresnes – France, Europropulsion S.A.
- (IV) Evry-Courcouronnes – Francia, Arianespace Participation S.A.

### REST OF THE WORLD

- (II) (IV) Kourou - French Guyana, loading of Ariane 5 solid propellant booster segments and their integration, integration of the VEGA launcher

#### Key

- (I) Headquarters
- (II) Production offices or location
- (III) Research laboratory
- (IV) Joint ventures and investees

## STRATEGY

In accordance with the outcomes of the December 2014 and December 2016 Ministerial Conferences, which confirmed the European strategy for developing its launchers, and pursuant to contracts entered into in 2015 and 2017, Avio is working on:

- developing the P120 engine as a common element of Vega-C (stage one) and Ariane 6 (booster);
- developing the Vega-C launcher to replace Vega, which will permit (i) an increase in performance of approximately 60% due to the new P120 engines (stage one) and Z40 (stage two) and lighter structures, (ii) an increase in the launch system's flexibility due to larger-capacity liquid tanks and (iii) an increase in available market share due its greater performances and therefore larger payload fairing in order to carry satellites with greater mass and volume and lighter structures;
- the development of the Upper Stage of the Vega-E with the new cryogenic Oxygen and Methane propellant M10 motor stems from the contract obtained through the ESA, with Avio and Italy together at the forefront with many other European countries. Vega-E (a three-stage launcher based on P120, Z40 and a LOx-methane upper stage), in addition to further cutting the launch price, will further improve (i) Vega-C's performance and (ii) the range and flexibility of satellite services, which enables, among other benefits, more extensive orbital parameter changes than possible with Vega and Vega-C.

In addition, the strategy of expanding the market accessible to Vega and, above all, the greater flexibility in terms of services offered to end clients, were further consolidated through participation in the following ESA programs:

- **SSMS**, which aims to provide a dedicated service for so-called Small-Sats, single or "constellations" of satellites with a mass range of 1-400 kg, which are increasingly in demand. Some launchers of the same class as Vega, such as Dnepr and PSLV, are already equipped with SSMS-like dispensers that offer the multi-launching of small satellites in this mass range. The development of an ad-hoc dispenser, along with the qualities of flexibility and versatility of the Vega upper stage, will give the launcher a significant competitive advantage;
- **Space Rider** (in partnership with Thales Alenia Space Italia), a Vega-C launched spacecraft capable of carrying up to 800kg of payload in orbit for 2 months for a variety of applications such as orbital experiments or services, and ultimately earth re-entry for the recovery of Payloads.

In parallel, Avio began development of a Vega derivative and of the Vega-C (called **Vega-C Light**), to carry satellites of under 300 KG, to be utilised on the small satellites market, for dedicated customer services, or (i) the replacement of a satellite in orbit, (ii) a particular orbital service, or (iii) fast deployment to a well-defined orbit at a specific moment. Avio to date (i) has finalised the configuration of 3 stages (Z40, Z9 and a new small solid propellant stage to be developed), (ii) is signing an agreement with the current supply chain of Vega / Vega-C for "simplified" structures and avionics, (iii) is assessing options in Europe for a possible launch base (among these, Portugal and Norway seem the most promising candidates).

The company recently consolidated its ground activities role i.e. mechanical, electrical and fluid activities at the launch base, begun in 2016 and which in fact extends its scope of expertise. This was part of an agreement reached with Arianespace to redefine Launch System responsibilities at the French Guyana Space Centre, with Avio taking over new activities in the second launch campaign of 2017 beginning in June.

The recently incorporated company AVIO Guyana S.A.S. acquired control of the Zone de Lancement Vega (ZLV) launch area and the management, in particular, of (i) launcher integration coordination and (ii) main assembly installation maintenance (e.g. Control Centre, Integration and Launch building, Propellant Loading Stations).

Since 2017 the company was able to implement its new model of governance in the European space industry, which it proposed through an agreement with partner companies of ArianeGroup (Prime Contractor for the Ariane 5 launcher and its successor Ariane 6), Arianespace (Launch Service Provider) and ESA as Observer. This model will allow Avio to have control of Arianespace's Business Plan regarding the marketing of the Vega launcher and its successors, in order to determine volumes and prices that allow, according to recurring launch system costs, balanced budgeting for the launcher's development. The company targets an increase in the number of annual Vega launches from the current 2-3 to a set 4-5 launches per year.

## SHAREHOLDERS

At June 30, 2019, the share capital of Avio S.p.A. of Euro 90,964,212.90 comprised 26,359,346 ordinary shares, of which:

- 22,533,917 ordinary shares from the merger with Space2, which resulted in the listing of Avio S.p.A. on April 10, 2017 (“business combination”) on the STAR segment of the Italian Stock Exchange (MTA);
- 1,800,000 following the conversion of 400,000 special shares into 2 tranches. In particular, the first tranche of 140,000 special shares was converted into 630,000 ordinary shares at the effective merger date of April 10, 2017, while the second tranche of 260,000 special shares was converted into 1,170,000 ordinary shares on May 17, 2017;
- 2,025,429 following the exercise of 7,465,267 Market Warrants in the June 16 - August 16, 2017 period.

In addition, Space Holding S.p.A., the promoter of the business combination, holds 800,000 Sponsor Warrants, exercisable within 10 years from the effective merger date of April 10, 2017, on the condition that Avio S.p.A. share price reaches Euro 13.00, with a conversion ratio with Avio S.p.A. post-merger shares of 1 against the payment of an exercise price of Euro 13.00.

At the effective merger date (April 10, 2017, the first trading day of the Avio S.p.A. share on the MTA), the condition for the exercise of the Sponsor Warrants was satisfied. At June 30, 2019, no exercise requests have been received from holders.

At June 30, 2019, on the basis of the communications received as per Article 120 of the CFA and the information available to the company, the Avio S.p.A. shareholder structure was as follows:

Shareholder	% share capital
Leonardo S.p.A.	25.88%
Amundi Asset Management	6.01%
Space Holding S.p.A.	5.60%
In Orbit S.p.A.	3.97%
Remaining MTA free float	58.54%
<b>Total</b>	<b>100%</b>

# H1 2019

## H1 SIGNIFICANT EVENTS

### **Business**

#### **Vega**

The fourteenth consecutive Vega (VV14) launch took place in March 2019, putting into orbit the “PRISMA” satellite of the Italian Space Agency for Earth observation.

#### **Ariane**

In the first half of 2019, two successful Ariane 5 launches took place - one in February 2019 (VA 247) and one in June 2019 (VA 248) - putting into orbit 4 satellites between commercial, European institutional and export (institutional and other nations).

#### **New Zefiro 40 (Vega C launcher's second stage) qualification tests successfully completed**

In May 2019, the second bench test of the Zefiro 40 motor took place at the Salto di Quirra Inter-forces Range in Sardinia. This is the final land qualification test of the motor and opens the way to the qualification of the Vega-C launcher.

The structural qualification test of the carbon fibre casing of the Zefiro 40 motor was successfully undertaken, culminating in the successful testing of the casing in June 2019, highlighting the significant resistance of the structure and the margins against operating conditions.

As the latest version of the Vega launcher, Vega-C will allow a 60% increase in performance, increasing market access for this launcher of Low Earth Orbit (LEO) satellites, a substantial part of which can be launched in multiple payloads.

#### **P120 C motor second bench test success (Vega C launcher's first stage)**

In January 2019, the second qualification test of the P120C solid propellant engine successfully took place at the European Space Centre in Kourou, French Guyana. This is the first of two qualification tests for the propulsion system of the Vega-C launcher and follows the development test of 2018. The second test, which will follow, is for the qualification of the Ariane 6 launcher. The P120C is in fact the new common motor for the Vega-C and Ariane 6 launchers. Avio plays a central role in the development of the P120C, the largest monolithic, carbon-fibre construction, solid propellant engine in the world, built at Avio's facilities in Colleferro. The engine was loaded with solid propellant produced by Regulus, a subsidiary of Avio, and forms part of the Europropulsion joint venture between Avio and ArianeGroup.

## Tactical Propulsion

In the first half of 2019:

- 16 boosters were constructed;
- the ASTER boosters from the MoD were maintained;
- 10 Marte Sustainers were constructed;
- 48 Aster Sustainers were constructed;

For the Aster 30 MLU programme, the following were undertaken:

- the first qualification test of the casing to check the mechanical characteristics with the new Avio fibre;
- the static bench test of the bomb with the new propellant to verify the ballistics performance was carried out;
- the PG1 review which closes the detailed design phase.

For the CAMM ER programme:

- 4 inert motors for the munitions level test were produced;
- 3 motors for the first flight test were produced;
- the first qualification test of the motor took place;
- manufacturing of the qualification motors and for the IM tests are under completion;
- the accelerated aging programme of the motors continues.

For the E-TVC, Phase 2 of the development contract with UTTAT was completed.

## Main agreements and contractual events in H1 2019

With regards to Ariane 5 production:

- negotiations for the new variant of the Batch PC related to the PB production contract for the supply of the Ariane 5 solid boosters is still ongoing with the ESA, in particular for the compensation for the Ramp down of the programme. Compensation for procurement (which has been completed) has concluded and will translate into a new contract over the coming months;
- the PC contract related to the production of the Vulcain 2 oxygen turbopumps remains unchanged. The final two units shall in fact be reutilised for the Ariane 6, maintaining the continuity of current Ariane 5 production and compliance with the schedule for the initial Ariane 6 deliveries;
- negotiations have been concluded for a new tranche of the MCO contract, which will cover the maintenance needs of the Ariane 5 manufacturing equipment until its completion. The above contract is expected to be signed by the end of next month;
- negotiations have been completed for the initial tranche of the LEAP contract for the earthquake protection update to the ESA's buildings, dedicated to Ariane manufacturing. The above contract is expected to be signed by the end of next month;
- the variant to the PC contract for the metal parts of the nozzle of the Ariane 5 booster is expected to be finalised by the end of the current month;
- the contracts for the final quarter of 2019 concern the analysis of the Ariane 5 flights for the components supplied by Avio (i.e. booster and oxygen turbo pump).

In terms of P120C SRM production, the recent signing of the side letter between Avio and Ariane Group Management (this latter as the Prime Contractor for the Ariane 6) unblocked a number of key points of the future production and supply contract for the P120C motors for the Ariane 6 launcher. Ahead of the completion of the contract, initial activities shall be covered by an “Authorisation to Proceed”. An “Authorisation to Proceed” was signed between ArianeGroup and Europropulsion on July 31, 2019, while that between Europropulsion and Avio is currently being finalised.

With regards to Vega production, Avio S.p.A. signed:

- with the client Arianespace:
  - an order for additional Batch 2 production activities;
- with the client ESA:
  - a conversion proposal for production assistance activities for the 2017-2019 period;
  - a contractual change (CCN) for the introduction of the qualification activities for the new detonators (ESI);
- with the client Europropulsion:
  - the P80 technical assistance contract for batch 3 of production.

With reference to the Vega development operations, a number of contractual variants were acquired which permitted:

- setting of the technical scope, the configuration and industrial organisation for Vega-C (both at launcher and launch base level, Space Rider and Vega-E);
- finalising SSMS PoC for the VV16 flight;
- a further consolidation phase for the VENUS preliminary project.

Negotiations began with the ESA regarding mission activities for the Vega-C qualification flight and the AVIO/ESA/ARIANESPACE/CNES protocol for the relative launch operations at Kourou.

With regards to tactical propulsion operations, the following are currently under negotiation:

- an additional tranche of the MLU contract;
- the post-MLU production contract;
- the Aspide Cipro propulsion unit recovery contract.

### **Other significant events**

#### **Signing of an additional Euro 10 million loan contract with the European Investment Bank (EIB)**

On January 16, 2019 the Company signed an additional Euro 10 million loan contract with the European Investment Bank (EIB). This loan is in fact in addition to, and subject to similar economic conditions as, the aforementioned original loan of Euro 40 million contracted in October 2017.

This increase will further support the planned development of new technologies in the field of space propulsion systems in view of the offering of the new products for the Ariane 6 and Vega-C programs and the expansion of industrial capacity at the Colleferro facility required to meet the Company's production volume targets for the coming years.

#### **Amendment to the dividend policy and second distribution of dividends**

On April 29, 2019, the Shareholders' Meeting, simultaneous to the approval of the financial documents for the year ended on December 31, 2018, approved the amendment of the dividend policy in accordance with the principle of sustainability over the medium/long-term on the basis of the economic-financial outlook, the solidity of the capital structure and also in consideration of "capital intensive" investment cycles in the medium to long-term.

The change to the policy was as follows: a "dividend yield" (the dividend per share as a percentage of the market value of the share), from a range of 2% to 3.5% of stock market capitalization to a range of 1% to 5% of stock market capitalization.

The "payout ratio" remains unchanged however in a range of between 25% and 50% of the consolidated net profit.

Following approval by the Shareholders' Meeting of April 29, 2019 of the statutory financial statements of the parent Avio S.p.A. and of the allocation of the net profit, in May 2019 dividends were distributed for the first time to shareholders, for a total of Euro 11,598 thousand.

#### **Approval of the proposal for authorization for the purchase of treasury shares in accordance with Article 2357 and 2357-ter of the Civil Code**

On April 29, 2019, the Shareholders' Meeting approved the purchase of Avio S.p.A. treasury shares, mandating the Board of Directors of the company to undertake a series of treasury share purchase and sale transactions on a revolving basis for a period of 18 months from the date of approval of the relevant shareholders' meeting resolution, while not collectively exceeding 10% of the share capital of Avio S.p.A and otherwise while in accordance with applicable laws and regulations.

The purchase of treasury shares was approved in order to efficiently use liquidity, to offer shareholders an additional instrument to monetise their investment and to use treasury shares as consideration in corporate actions, to receive funds for acquisition projects and/or in exchanges of shareholdings, or for other uses deemed of interest to the Company in financial, managerial and/or strategic terms.

The purchase price of the treasury shares shall be identified on a case by case basis, according to the pre-chosen means to undertake the transaction and in compliance with any regulatory provisions or permitted market practices and, in any case, purchases shall be made at a price per share not more than 10% below and not more than 10% above the reference price recorded on the STAR segment of the Italian Stock Exchange on the day before each purchase transaction, or for a different price in accordance with market practice or Regulation (EU) No. 596/2014 of the European Parliament of April 16, 2014, for transactions subject to the said Regulation.

## MARKET AND OPERATING PERFORMANCE

### General overview: historic and future outlook

In the first 6 months of 2019, 41 orbital launches were undertaken.

Excluding “Unknown” satellites (of an undisclosed nature), the 41 launches in H1 2019 placed in orbit:

- 126 main satellites (up from 92 in H1 2018), the majority of which for LEO orbits, and constant numbers for GEO, MEO and the ISS. These satellites are mainly “commercial”, differing from 2018 in which the satellites were mainly “governmental” or, more generally, “institutional”;
- 105 secondary satellites, almost exclusively in LEO orbit, confirming the decline since 2018, during whose calendar year 264 secondary satellites were sent into orbit, against 309 in 2017. The secondary satellites are generally small-mass satellites ridesharing on primary satellite launches. These satellites are almost equally distributed between “commercial” and “institutional”.

The first half of 2019 figures are in line with satellite market forecasts for the 2018-2027 ten-year period. The trend for the number of satellites requiring a launch service indicates:

- substantial stability for GEO satellites (almost exclusively commercial and dedicated to broadcasting telecommunication services);
- despite the slight decrease in the number of SmallSats, the LEO satellite market continues to expand for both institutional and commercial applications, especially in the fields of earth observation, navigation and telecommunications services, such as broadband internet, mobile telephony and Internet of Things. Regarding these services, there is good reason to believe that a greater prominence will be seen of so-called small satellite constellations, typically in the order of 5-150 kg with unit numbers ranging from a few dozen to thousands (this trend was particularly evident from 2013 onwards and was confirmed in 2018 and H1 2019). Consequently, it is expected that most of the increase in launches will be taken up by high frequency launchers with multi-load mission characteristics, for which Avio is developing the Vega-C SSMS service.

### Launchers market

Although reporting some interesting new developments, H1 2019 confirmed the global trend of recent years, in which:

- few nations have launch services capable of responding to the consistently strong institutional market: the USA, Russia and China and, to a lesser extent, Europe, India and Japan; New Zealand in 2018 carried out to date 7 launches of the Mini Electron Launcher, developed and operated by Rocket Lab;
- an even smaller number of nations can respond to commercial market needs;
  - USA primarily, with the Falcon 9 launcher marketed by Space X establishing itself. In the first half of 2019, Space X put into orbit a mass of 51 tonnes of commercial satellites, with an improving trend on the total for 2018, in which a mass of 61 tonnes was launched. The increase is partly

- due to the first launch of the Starlink constellation, which put into orbit a total of 60 satellites for a total mass of approx. 14 tonnes;
- Europe with its range of Ariane 5, Vega and Soyuz launchers offered by Arianespace (4 commercial launches, between Ariane 5 and Soyuz, with a mass of 13.5 tonnes, in line with the annual total for 2018 of 27 tonnes);
  - Russia, with Soyuz 2.1a and 2.1b, did not undertake commercial launches in the first half of 2019;
  - India with PSLV, among Vega's main competitors;
  - China, which is entering the commercial market with small CZ Class institutional launchers, but also Kuaizhou and LandSpace;
  - China in the first half of 2019 undertook 11 launches (almost exclusively institutional), significantly decreasing on the 39 launches of 2018, which set a new calendar year record;
  - Russia confirmed a downward trend with only 5 launches (17 in 2018), while Europe remains substantially stable with 6, including the Soyuz marketed by Arianespace (11 in 2018);
  - operations for PSLV on the new DL and QL versions began, in addition to the first unmanned Dragon test, the SpaceX capsule for astronaut transport on the ISS.
  - with regards to "failures" in 2019 to date, we report those of the Iranian Simorgh and Safir launchers and of the Chinese CZ-4c and OS-M1 (Maiden Flight) and Vega (VV15) launchers. Over the last decade, Russia has confirmed its position as the nation with the highest number of failures (14 out of 260 launches), followed by China (10 out of 190 launches). Japan and Europe are the most successful regions with zero and three failures respectively.

Finally, 2018 confirmed that the space sector is attracting more and more capital from private investors, such as business angels and venture capitalists, destined for both established companies, such as Space X, or start-ups, such as Vector, Alpha, Orbex, Rocket Lab, and LandSpace. The last 10 years have seen investments to the tune of USD 18 billion, equally divided between launcher and satellite sectors, with USD 4.5B in 2017 and USD 3B in 2018. In the first half of 2019, investments of USD 2.9B were recorded. Such capital incentives are allowing more and more companies to enter the restricted circle of business with nations acting on space ambitions; examples, in 2018, despite their first launch failures, being Rocket Lab and LandSpace. In view of the above, in addition to (i) the ever stronger market growth in 1 to 500 kg mass satellites, and (ii) the increase demand for LEO satellites typically in the 1-2 ton mass class, AVIO considers that it will be able to cover the wide range of demand through products and services supplied through Vega, Vega-C, SSMS, Space Rider, Vega Light and the various VSS modules under development for increased performance, flexibility and versatility. Meeting the challenge will require reductions in the costs of the products and services, opportune timing and responsiveness in proposing them (with several Mini-Launchers already operative outside Europe) and an aggressive commercial strategy, particularly towards commercial customers, which make up the majority of the demand.

## GROUP OPERATING PERFORMANCE AND FINANCIAL AND EQUITY POSITION

### Earnings and financial results

#### Operating results

The table below summarises the comparable performance of the Group for the first half of 2019 and the first half of 2018 (in Euro thousands):

	H1 2019	H1 2018	Change
Revenues	190,997	202,005	(11,008)
of which: Pass-through revenues	1,950	23,180	(21,230)
<b>Revenues, net of pass-through revenues</b>	<b>189,047</b>	<b>178,825</b>	<b>10,222</b>
Other operating revenues and changes in inventory of finished products, in progress and semi-finished	2,847	5,739	(2,892)
Costs for goods and services, personnel, other operating costs, net of capitalised costs & pass-through	(176,780)	(171,826)	(4,955)
Effect valuation of investments under equity method - operating income/(charges)	981	1,768	(787)
<b>EBITDA</b>	<b>16,095</b>	<b>14,506</b>	<b>1,590</b>
Amortisation, depreciation, and write-downs	(8,019)	(6,841)	(1,178)
<b>EBIT</b>	<b>8,076</b>	<b>7,664</b>	<b>412</b>
Interest and other financial income (charges)	(176)	(235)	59
<b>Net financial charges</b>	<b>(176)</b>	<b>(235)</b>	<b>59</b>
Investment income/(charges)	-	-	-
<b>Profit before taxes</b>	<b>7,901</b>	<b>7,430</b>	<b>471</b>
Current and deferred taxes	(838)	(1,223)	385
<b>Group &amp; minority interest net profit</b>	<b>7,063</b>	<b>6,207</b>	<b>856</b>

The “pass-through revenues” derive from agreements reached with the European Space Agency in August 2015 for the development and construction of the new “P120” engine for future generation Vega-C and Ariane 6 launches. As a result of the implementation of these agreements, the Avio Group consolidated revenues include the following dual invoicing:

- an initial invoice from the parent company Avio S.p.A., as the sub-supplier, to the Europropulsion S.A. joint venture with revenues and margins not eliminated during the consolidation of the Avio Group as this joint venture is not fully consolidated;
- a second invoice up until February 28, 2018 from the subsidiary ELV S.p.A. (now Spacelab S.p.A.) and from March 1, 2018 (following the acquisition by the parent company Avio S.p.A. of the launcher’s business unit of the subsidiary ex-ELV S.p.A.) directly by Avio S.p.A., as prime contractor, to the final client the European Space Agency. This concerns a simple reinvoicing of costs received by Europropulsion, without margins, not eliminated in the Avio Group consolidation process as concerning third parties and defined as “pass-through” in this report.

Revenues net of “pass-through” revenues were Euro 189,047 thousand in the first half of 2019, up Euro 10,222 thousand (+5.7%) on the first half of 2018. This net increase principally concerns the VEGA programme.

The above revenues breakdown by business line as follows:

	H1 2019	H1 2018	Change
Ariane	76,353	84,399	(8,046)
Vega	102,316	84,399	17,917
Tactical Propulsion	9,461	9,325	136
Other revenues	917	702	215
<b>Revenues, net of pass-through revenues</b>	<b>189,047</b>	<b>178,825</b>	<b>10,222</b>

EBITDA in the first half of 2019 was Euro 16,095 thousand, increasing Euro 1,590 thousand on H1 2018.

EBIT of Euro 8,076 thousand was up Euro 412 thousand on H1 2018.

The improvement on the first half of the previous year mainly relates to the reduction in non-recurring costs, incurred by the Group during the stock market listing phase.

In the first half of 2019, results benefitted from the research and development tax credit for Euro 0.9 million (Euro 1.2 million in H1 2018). The Group has benefitted since 2017 from the research and development tax credit for operations commissioned by the European Space Agency. This contribution, of Euro 0.9 million for the first half of 2019, comprised the benefits matured in 2017 and 2018, recognised to the income statement in the first half of 2019 on the basis of the advancement of the costs incurred in the period with regards to long-term orders for the research and development operations to which the benefit refers.

The reduced contribution compared to the first half of 2018 mainly concerns the regulatory changes introduced by the 2019 Budget Law and the subsequent clarifications issued by the tax authorities.

Currently, this benefit maturing in 2017 and 2018, on the basis of the state of advancement of long-term orders which have incurred costs against which the tax credit may be applied, is expected to benefit the medium-term period with an effect on the results of each year and period depending on the effective level of advancement of the qualifying orders.

Similarly to the first half of 2018 in the first half of 2019, no portion of the additional potential benefits from the tax credits maturing in 2019 was recognised.

For a more complete representation of the Group's earnings performance, the EBITDA and EBIT adjusted to exclude Group non-recurring and unusual components are presented below. The above adjusted amounts (in Euro thousands) and the relative margins for H1 2019 and H1 2018 are reported below:

	H1 2019	H1 2018	Change
<b>Adjusted EBITDA</b>	<b>16,869</b>	<b>16,115</b>	<b>754</b>
Adjusted EBITDA Margin (against revenues net of pass-through revs.)	8.9%	9.0%	
<b>Adjusted EBIT</b>	<b>8,850</b>	<b>9,274</b>	<b>(424)</b>
Adjusted EBIT Margin (against revenues net of pass-through revs.)	4.7%	5.2%	

The Adjusted EBITDA is considered by management as representative of the Group's operating results as, in addition to not considering the effects of amortisation and depreciation policies, the amounts and types of employed capital funding and any rate changes, already excluded from EBITDA, it also excludes non-recurring and extraordinary components of Group operations, improving the comparability of the operating results.

The H1 2019 Adjusted EBITDA was Euro 16,869 thousand (8.9% of net revenues), up Euro 754 thousand on Euro 16,115 thousand for H1 2018 (9.0% of net revenues), principally due to the higher amortisation and depreciation and reduced lease and operating lease costs from application for the first time of IFRS 16 in the first half of 2019.

Adjusted EBIT, also considered by management as representative of the Group's operating results, consists of EBIT excluding non-recurring or extraordinary components, already excluded for the calculation of Adjusted EBITDA.

H1 2018 adjusted EBIT was Euro 8,850 thousand (4.7% of net revenues), substantially in line with H1 2018 (-Euro 424 thousand, 5.2% of net revenues in the comparative period).

The reconciliation between EBIT, Adjusted EBIT and Adjusted EBITDA for the first half of 2019 and the first half of 2018 is provided below (Euro thousands):

	H1 2019	H1 2018	Change	
<b>A EBIT</b>	<b>8,076</b>	<b>7,664</b>	<b>412</b>	
Non-recurring Charges/(Income) comprising:				
- Additional issues / incentives	3	625	(621)	
- Consultancy and legal, corporate, administrative and IT system services	192	890	(697)	
- Tax provisions		25	(25)	
- Indemnities <sup>(1)</sup>	(286)		(286)	
- Other costs	392		392	
- Settlements <sup>(2)</sup>	398			
<b>B Total Non-recurring Charges/(Income)</b>	<b>700</b>	<b>1,539</b>	<b>(839)</b>	
C <i>Investor Fees</i>	75	71	4	
<b>C Adjusted EBIT</b>	<b>A+B+C</b>	<b>8,850</b>	<b>9,274</b>	<b>(424)</b>
E Net amortisation & depreciation	8,019	6,841	1,178	
<b>Adjusted EBITDA</b>	<b>D+ E</b>	<b>16,869</b>	<b>16,115</b>	<b>754</b>

<sup>(1)</sup> Indemnities received from the previous owner in relation to tax settlements concluded in the period, although relating to disputes existing before the corporate transaction of March 2017 leading to the company's stock market listing.

<sup>(2)</sup> The account refers to the settlement with FCA Partecipazioni S.p.A. regarding environmental charges

### Financial results analysis

Net financial charges of Euro 176 thousand were reported in the first half of 2019, substantially in line with Euro 235 thousand in H1 2018, despite the signing on January 16, 2019 of the additional loan contract with the European Investment Bank (EIB) for Euro 10 million, at the same financial and contractual conditions of the original Euro 40 million loan signed in October 2017 with the same bank.

## Balance Sheet

The Group balance sheet is broken down in the following table (in Euro thousands):

	June 30, 2019	December 31, 2018	Change
Tangible assets and investment property	92,679	92,260	419
Rights of use	6,481	-	6,481
Goodwill	61,005	61,005	-
Intangible assets with definite life	118,313	116,954	1,359
Investments	5,879	8,138	(2,259)
<b>Total fixed assets</b>	<b>284,358</b>	<b>278,357</b>	<b>6,001</b>
<b>Net working capital</b>	<b>(15,881)</b>	<b>(30,957)</b>	<b>15,076</b>
Other non-current assets	78,377	66,521	11,856
Other non-current liabilities	(122,272)	(122,453)	181
Net deferred tax assets	76,529	76,150	379
Provisions for risks and charges	(29,756)	(15,864)	(13,892)
Employee benefits	(11,228)	(10,706)	(522)
<b>Net capital employed</b>	<b>260,128</b>	<b>241,049</b>	<b>19,080</b>
Non-current financial assets	6,032	5,812	220
<b>Net capital employed &amp; Non-current financial assets</b>	<b>266,160</b>	<b>246,861</b>	<b>19,299</b>
Net Financial Position	20,416	49,126	(28,710)
Equity	(286,576)	(295,986)	9,410
<b>Source of funds</b>	<b>(266,160)</b>	<b>(246,861)</b>	<b>(19,299)</b>

“Total fixed assets” amounted to Euro 284,358 thousand at June 30, 2019, a net increase of Euro 6,001 thousand on December 31, 2018 as a combined effect of the following main movements:

- the net increase of Property, plant and equipment of Euro 419 thousand, principally due to investments in plant and machinery, in addition to buildings, mainly for the execution of the new P120 engine project for Euro 3,716 thousand, net of depreciation in the period;
- “Rights-of-use”, absent at December 31, 2018, refers to the initial application in the first half of 2019 of IFRS 16 which requires the representation of assets held under leases or operating leases among fixed assets and the application of depreciation. The amount of Euro 6,481 thousand, resulting from the application of this standard, mainly concerns buildings and plant at the industrial complex at which the company and the subsidiary Regulus S.A. operate, in addition to a fleet of leased company vehicles;
- net increase in Intangible assets with definite life of Euro 1,359 thousand, principally due to increases for development costs capitalised for Euro 5,380 thousand, mainly concerning mini launcher research projects and those on the liquid oxygen and methane engine, net of amortisation in the period;

- decrease in Investments for Euro 2,259 thousand, due to the change in the period relating to the investment in the jointly-controlled company Europropulsion S.A., which is measured at equity, increasing due to the 50% share of profits matured in the period January 1, 2019 to June 30, 2019 of Euro 981 thousand, net of Euro 3,240 thousand for dividends paid in the same period.

The “Other non-current assets” and “Other non-current liabilities” in the balance sheet respectively include a receivable from the General Electric Group and a related tax payable of Euro 58,220 thousand recognised in the first half of 2016, following the receipt from the Tax Agency of the settlement notice of registration tax, mortgage tax and land tax, for a total amount of Euro 58,220 thousand, relating to the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the AeroEngine division of the Avio Group) to the General Electric Group.

The recognition of the above-mentioned receivable from the General Electric Group is based on specific contractual clauses by which this latter is required to indemnify Avio S.p.A. with reference to any liabilities which may arise in relation to indirect taxes concerning the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the *AeroEngine* division of the Avio Group) to the General Electric Group.

In addition, also on the basis of specific contractual provisions, the General Electric Group is required to make available to Avio S.p.A. any amounts requested by the Tax Agency by the payment deadlines.

For further details, reference should be made to paragraphs 3.9 “Other non-current assets” and 3.23 “Other non-current liabilities”, in addition to the section “Legal and tax disputes and contingent liabilities” in the Explanatory Notes.

As reported in the “Subsequent events” section, on August 2, 2019, the Avio Group and FCA Partecipazioni S.p.A. reached a settlement concerning environmental charges, according to which FCA Partecipazioni S.p.A. committed to recognise to the Avio Group a total amount of Euro 19.9 million, of which Euro 11.3 million for reclamation activities and environmental restoration to be paid in the 2019-2023 period and Euro 8.6 million for post-operative management and maintenance to be paid in the 2019-2048 period, against the lapsing of the contractual guarantees which the company provided in the past to the Avio Group. This agreement therefore resulted in the recognition of a discounted receivable from FCA Partecipazioni S.p.A. (with an increase to the other current and non-current assets account) and of a corresponding charges provision (with an increase in the risks and charges provisions), substantially balancing the full life economic and financial effects. During the period, this settlement resulted in the recognition to the income statement of a non-recurring charge of Euro 0.4 million and a full life benefit to the net financial position of Euro 0.5 million.

“Net working capital” reports a net increase of Euro 15,076 thousand, resulting in an excess of liabilities over assets of Euro 15,881 thousand. The main components are outlined in the following table (in Euro thousands):

	June 30, 2019	December 31, 2018	Change
Contract work-in-progress, net of advances	(87,823)	(73,921)	(13,902)
Inventories	43,132	36,444	6,688
Advances to suppliers	92,933	79,636	13,297
Trade payables	(120,120)	(131,407)	11,287
Trade receivables	3,495	7,017	(3,522)
Other current assets and liabilities	52,502	51,274	1,228
<b>Net working capital</b>	<b>(15,881)</b>	<b>(30,957)</b>	<b>15,076</b>

The increase in current trading, substantially due to the cyclical nature of the receipt of advances from clients and works on orders, principally concerns an increased mix of activities in the period against advances from clients received in the past.

“Other current assets and liabilities” of net working capital were substantially in line with December 31, 2018 (net decrease of Euro 1,228 thousand to Euro 52,502 thousand). The main components of this account are outlined in the following table (in Euro thousands):

	June 30, 2019	December 31, 2018	Change
VAT receivables	49,410	46,253	3,157
Research and development tax credits	8,584	12,705	(4,121)
Current tax receivables	6,133	3,817	2,316
Other current assets	13,656	7,608	6,048
Current income tax liabilities	(3,344)	(2,308)	(1,036)
Other current liabilities	(21,936)	(16,801)	(5,135)
<b>Other current assets and liabilities</b>	<b>52,502</b>	<b>51,274</b>	<b>1,228</b>

The “VAT receivables” account did not increase significantly - as has been the case in the past - despite the fact that the Group, whose sales are almost entirely from overseas, potentially matures a VAT receivable from third party purchases exceeding the VAT payable deriving from these sales. In particular, the reduction in new VAT receivables relates to the fact that from 2017, as a result of the appeal presented to the Tax Agency, the parent company Avio S.p.A. has been able to apply the regular exporters regime also to transactions carried out with the subsidiary formerly known as ELV (now Spacelab) and with the ESA as the client, permitting use

therefore of the ceiling <sup>(3)</sup> which allows for a reduction in the VAT receivable. The situation has been entirely consolidated following the acquisition of the ex-ELV (now Spacelab) business unit by the parent company Avio S.p.A.

The increase in the VAT receivable in the period mainly concerns transactions for which by law it is not possible to apply the “ceiling”.

Therefore, as indicated in the subsequent events section, following the reimbursement applications presented by the parent company Avio S.p.A. to the Tax Agency, in July and August 2019 VAT receivables were collected for a total of Euro 28.0 million, in addition to interest of Euro 231 thousand.

The movement in the research and development tax credits during the period reflects the regulatory changes introduced by the 2019 Budget Law, in addition to the subsequent clarifications provided by the tax authorities. In particular, the offsetting in the period concerns the portion of the credit matured in 2017, while the offsetting of the portion of the credit matured in 2018 began in August 2019 following the release of the relative “certification” from the appointed auditor, as required by the above-stated regulatory changes.

Similarly to the first half of 2018, in the first half of 2019, no portion of the additional potential benefits from the tax credits maturing in 2019 was recognised.

### Analysis of the financial position

The table below illustrates the net financial position (in Euro thousands):

	June 30, 2019	December 31, 2018	Change
Cash and cash equivalents	93,833	108,435	(14,602)
<b>(A) Liquidity</b>	<b>93,833</b>	<b>108,435</b>	<b>(14,602)</b>
(B) Current financial assets	-	-	-
<b>(C) Total current financial assets (A+B)</b>	<b>93,833</b>	<b>108,435</b>	<b>(14,602)</b>
Current financial payables to companies under joint control	(16,749)	(19,249)	2,500
<b>(D) Current financial liabilities</b>	<b>(16,749)</b>	<b>(19,249)</b>	<b>2,500</b>
Current portion of non-current bank payables	(75)	(60)	(15)
Current financial liabilities IFRS 16	(1,172)		(1,172)
<b>(E) Current portion of non-current financial payables</b>	<b>(1,247)</b>	<b>(60)</b>	<b>(1,187)</b>
<b>(F) Current financial debt (D+E)</b>	<b>(17,996)</b>	<b>(19,309)</b>	<b>1,313</b>
<b>(G) Net current financial position (C+F)</b>	<b>75,837</b>	<b>89,126</b>	<b>(13,288)</b>
Non-current portion of bank payables	(50,000)	(40,000)	(10,000)
Non-current financial liabilities IFRS 16	(5,421)		(5,421)
<b>(H) Non-current financial liabilities</b>	<b>(55,421)</b>	<b>(40,000)</b>	<b>(15,421)</b>
<b>(I) Net non-current debt (H)</b>	<b>(55,421)</b>	<b>(40,000)</b>	<b>(15,421)</b>
<b>(J) Net Financial Position (G-I) <sup>(4)</sup></b>	<b>20,416</b>	<b>49,126</b>	<b>(28,710)</b>

<sup>3</sup> VAT regime for regular exporters, which permits the requesting of suppliers to not apply VAT on assessable transactions made within the State, for an amount equal to the export sales and similar transactions carried out in the previous year.

<sup>4</sup> The net financial position is based on the definition contained in the CESR Recommendation of February 10, 2005: “Recommendations for the uniform implementation of the European Commission regulation on financial statements”.

The net financial position decreased from a cash position of Euro 49,126 thousand at December 31, 2018 to Euro 20,416 thousand at June 30, 2019.

Net of the IFRS 16 effect, present in H1 2019 and absent in 2018, which does not generate an actual cash outlay, comparing like-for-like figures the financial position reduced from a “pro-forma” cash position of Euro 42,533 thousand at December 31, 2018 to Euro 20,416 thousand at June 30, 2019, decreasing Euro 22,117 thousand, principally due to the cyclical nature of operating cash flows, in line with expectations, in addition to capital expenditures in the period (Euro 9.0 million) and the payment in the period of dividends, approved together with the 2018 Annual Accounts (Euro 11.6 million).

### **Analysis of equity**

Consolidated equity at June 30, 2019 amounts to Euro 286,576 thousand, decreasing Euro 9,410 thousand compared to Equity at December 31, 2018, as a result of the following main movements:

- recognition of the consolidated net profit of Euro 7,063 thousand;
- settlement by the parent Avio S.p.A. of FY 2018 dividends of Euro 11,598 thousand;
- settlement to third parties by the subsidiary Regulus S.A. of FY 2018 dividends of Euro 1,440 thousand;
- minority interest distribution of dividends by the subsidiary Spacelab S.p.A. of Euro 3,000 thousand;
- actuarial losses of Euro 430 thousand.

## RESEARCH AND DEVELOPMENT

Investment in research and development is a key factor in achieving and maintaining a competitive position in the space industry.

Avio, as always, devoted considerable resources to the research, development and innovation of products and processes which further its mission. Among its objectives is also the environmentally sustainable development of its activities and products, with particular attention paid to the issues of environmental protection, facility safety and the protection of its workforce.

Regarding such key issues, Avio continues to collaborate closely with national institutions such as the Italian Space Agency (ASI), the Ministry of Education, Universities and Research (MIUR) and the Economic Development Ministry (MISE), in addition to international institutions such as the European Space Agency (ESA) and the European Union.

Avio has developed a network of partnerships with Universities and research bodies in Italy and Europe, among which the Italian Aerospace Research Center (CIRA), the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Universities of Rome, the Polytechnic University of Milan, the 'Federico II' University of Naples, the University of Padua, the University of Forlì, the Sardinian AeroSpace District (DASS) and the Polymeric and Composite Materials and Structures Engineering cluster of Campania (IMAST). Avio also forms part of various consortia between European research institutes and industrial partners for the development of research in the field of energetic materials.

The Group has maintained its participation in research projects with various national and international organizations active in aerospace research. In particular, it continues to collaborate with universities involved in researching advanced solid propellants, composite materials, solid rocket motor (SRM) propulsion systems, cryogenic propulsion, hybrid propulsion and with major global manufacturers and research institutes developing propulsion technologies and innovative modules and components that can benefit from the synergy of individual specific competencies.

Research and development costs incurred by the Avio Group in H1 2019 amounted to Euro 78.8 million (Euro 97.5 million in H1 2018), equating to 41.3% of gross consolidated revenues for H1 2019 (48.3% in H1 2018).

Net of pass-through costs, research and development by the Group in H1 2019 incurred costs of Euro 76.9 million, 40.7% of revenues net of pass-through revenues (Euro 74.3 million in H1 2018, equal to 41.6% of revenues net of pass-through revenues).

Self-financed and executed activities amounted in H1 2019 to Euro 6.6 million (Euro 4.6 million in H1 2018).

Self-financed activities in H1 2019 included Euro 5.2 million relating to development costs capitalised as Intangible assets with definite life (Euro 3.4 million in H1 2018) and Euro 1.4 million concerning research costs or development costs not capitalisable and directly recharged to the income statement (Euro 1.2 million in H1 2018).

The total amount of costs related to self-financed activities charged to the income statement in H1 2019 was Euro 3.5 million (Euro 3.4 million in H1 2018), comprising Euro 1.4 million of directly expensed non-capitalisable costs (Euro 1.2 million in H1 2018) and Euro 2.1 million for the amortisation of development costs capitalised (principally) in previous years (Euro 2.2 million in H1 2018).

In the first half of 2019, Avio continued its innovation upon the main product lines, harmonising basic research, applied research and pre-competitive development activities.

### Solid Propulsion

In Avio's strategic vision, solid propulsion represents a mature but competitive technology that significantly reduces the cost of launch services and keeps the European space carrier market competitive on the global scene. Avio has made clear that its vision includes the consolidation and further development of both VEGA and the forthcoming Ariane 6 launcher, set to replace Ariane 5. After successfully completing the first firing bench test for the development of the P120 in the second half of 2018, in January 2019 Avio also successfully concluded the bench test of the P120 for Vega C application.

In addition to the development programs for the new propulsion shared between VEGA and Ariane (the P120C), Avio has consolidated its VEGA C market position through the configuration capable of competing in the large SAR satellite segment for earth observation.

Regarding the solid propulsion engine segment, Avio has carried out various research activities to consolidate and optimize production technologies for qualified products concerning the Ariane 5 and VEGA launchers, and to prepare for the development of the forthcoming generations of European launch vehicles, Ariane 6, VEGA C and VEGA E.

With the Z40 Motor bench test in May 2019, development activities for the Z40 motor have concluded (for use as a second stage for VEGA C and Vega E), which supports structural compression flows of up to 2KN/mm, the maximum value achieved by a composite propellant of this class.

Research and development in materials have focused mainly on the development of advanced, high performance and low toxicity solid propellants for implementation in the Ariane and Vega programs. Additionally, the possible expansion of the Avio composite materials production chain has been carefully researched and analysed, leading to the identification of various possible spin-offs in other sectors.

### Liquid Propulsion

Avio considers cryogenic propulsion based on liquid oxygen and methane as the answer to future generations of late stages for launch vehicles, as well as for spacecraft exploration.

In H1 2019, development activities continued on the M10 engine for propulsion of the third stage of the future VEGA E, with the Preliminary Design Review (PDR) successfully completed and the main subsystems activities ongoing, whose PDR is expected to conclude at the start of the second half of 2019. In addition, the first Full Scale prototype of the M10 motor (LOX/LNG) combustion chamber has been constructed, entirely in ALM and the cold fluid dynamic tests were successfully completed at Avio's Colleferro plant.

Avio has continued therefore to develop breakthrough solutions in terms of configurations, technologies and materials for combustion chambers and turbopumps, with the ultimate goal of developing an innovative high-performance and low-cost oxygen-methane engine to be introduced into the development of Vega E, whose first flight is expected to take place in 2024.

Vega E will be capable of launching approximately three tons into orbit, that is twice the current Vega version. In addition, one of its main features, thanks to its M10 cryogenic engine, will be the release of numerous satellites in various orbits on the same mission and at competitive cost.

During the first half of 2019, optimisation activities continued for the ALM construction of the M10 motor, on the basis of the success of 2018 with the first European test campaign of a prototype for an innovative 20KN combustion chamber with cooling channel, manufactured in ALM by implementing the Avio "Single Material Single Part" patent.

These results confirm that additive technology can indeed be used to achieve a suitable thermal exchange for a combustion chamber with a single low thermal diffusion material, opening up therefore the road to developing a 100 KN combustion chamber (a feature of the M10 motor for Vega E), constructed with one piece and one material utilising ALM technology and to be fire tested in the second half of 2019.

The first development phase (2017-2019) of the M10 engine and the definition and architecture of the Vega E (VUS) Upper Stage (VUS) was finalised as part of the CM2016.

The second development phase is set to be approved and funded at the next European ministerial conference scheduled for the end of 2019.

Avio has continued to self-fund the launch and the development of LOx and LCH4 cryogenic resins for a new generation of large liner-free composite tanks to be included in the future version of the Vega E Upper Stage. In particular, during the first half of 2019 two reduced-scale technological demonstrators were constructed to verify the optimal construction process with "fibre placement" technology and the mechanical and thermal characteristics of the composite structures in contact with the cryogenic and oxidising environment created by liquid oxygen.

## Space Transport Systems

During the first half of 2019, Avio consolidated the development of the VEGA C launcher, completing the Critical design Review, as part of the VECEP contract (ESA), based on a first stage with 50% greater total thrust than the current version and a fourth stage with 15% total greater thrust. The goal, among others, is to improve the launcher's capabilities by increasing its reference payload by over 50%.

In response to increasing small satellite demand, in 2019 research into developing the new VEGA Light launcher continued. The performance of this new launcher will be optimised to put into circular orbit (500X500 Km SSO) a payload of approx. 250 KG.

During the first half of 2019, the study on the optimal configuration of the Vega Light launcher was completed and the initial development phases began. The first milestone shall be the passing of the Preliminary Design Review by the third quarter of 2019.

Studies continued on the Space Rider system, unmanned and reusable space transport, which, thanks to its integration with Vega, will create an integrated family of services under the title of Vega Space Systems (VSS).

Within this scope, development of the new SSMS (Small Spacecraft Mission Service) was pursued, a dispenser adaptor for the release of numerous satellites within the same mission, usable also for orbit test or orbit demonstration activities.

## Tactical Propulsion

During the first half of 2019, activities continued on the development of the CAMM-ER missile engine, including its main components, several of which are highly innovative for Avio, such as the propellant, the blast pipe, the electronic Safe & Arm device with primary pyrotechnic charge and system architecture for guaranteeing a high thrust ratio between booster and sustainer engine phases. After the testing of various high-performance composite casing motors was completed last year, the industrialisation of low-viscosity propellant was completed in the first half of 2019.

In the initial months of 2019, the qualification phase could begin in flight conditions of the solid propellant motor of the CAMM ER missile with use in three models produced in 2018.

Self-financed, pre-competitive development activities have continued for the electromechanical Thrust Vector Control of Aster 30 class tactical propulsion engines, and following the end of Phase A for the power distribution unit, activities continued in relation to Phase B.

Activities continued on obsolescence solutions for the Aster 30 Booster, which led to the use of Avio-developed fibre and a new propellant with unprecedented high speed and low temperature mechanical qualities. The replacement of materials restricted by US legislation is also continuing.

## HUMAN RESOURCES

At June 30, 2019, Group employees numbered 910, increasing on 838 at December 31, 2018. The number of employees does not include the company Europropulsion S.A. (88), consolidated at equity. The majority of the workforce is employed by the parent company Avio S.p.A., which at the same date numbers 793 (up on 724 at December 31, 2018).

### Industrial Relations

During the first half of the year, in agreement with the Trade Unions, the “*Measures to support work-life balance*” Regulation was drawn up. This Regulation, entering into force on February 1, 2019, sets out and governs the legal and company bodies which employees may utilise to balance their working and private life needs.

The following issues were also covered with the Trade Unions:

- **Management of commutes:**

During the period, the *Commuting Regulation* update was sent to the RSU (trade union representative body). At the end of June, the new document to be circulated in July through the company’s institutional channels (intranet, MyGovernance, notice board) was prepared.

- **Classifications:**

The valued roundtable hosted in 2018 to discuss blue-collar labour classifications is scheduled for the end of June, given the positive results in the first year. Discussions are still ongoing.

Simultaneously, in the first half of 2019:

- agreements were signed for the **summer and Christmas closures**;
- the **2019 Participation bonus (based on the 2018 results)** was drafted;
- other issues, such as for example those regarding cleaning and company catering, were dealt with. On this latter issue, with the Commissione Mensa (Canteen Commission), application of the “sacchetto” was amended, introducing a change requested by a majority of users.

We highlight the usual meeting between company management (CEO, HR Manager and Industrial Operations Manager) and the Regional and chemical sector Trade Union representatives of the Cgil, Cisl, Uil and UGL. This meeting was held at Avio’s headquarters in Colleferro on June 17, 2019, at which a detailed update upon the financial results, programmes, investments and the situation of personnel was provided.

During the period, a trade union agreement was signed with the RSU which introduces, in accordance with the collective contract, the “**Trade Union notice board**”, a virtual space on the company intranet where the RSU may post trade union type material, including - obviously - its communications.

No strikes or actions against the company took place during the year.

### Development and Training

In H1 2019, in line with Business support and development needs, the following personnel were hired: 1 executive, 5 senior managers, 14 professionals, 16 white-collar employees (total of 36), of which 97% graduates possessing specific skills in various professional areas and with varying degrees of experience.

In addition, 50 blue-collar workers were hired.

During the period, 19 Professional and White-collar employees were involved in professional mobility procedures, both in terms of department and office location, in order to optimize organizational and business development. In addition to the organisational benefits, these mobility courses, in the majority of cases, are opportunities for the professional growth of the staff involved.

The internal job posting tool was also utilised (4 in the half-year), offering employees the opportunity to proactively pursue their professional development.

Regarding Personnel Development in H1 2019, two senior managers was promoted to executive management, while 3 blue-collar workers were promoted to white-collar positions.

In addition, ahead of the introduction of the Merit and Development Policy 2019, 11 professional development actions were undertaken, of which 8 qualifying as Professional Experts (the top level).

In support of training at the Avio Group, in H1 2019, 1,523 training days were held, involving 2,769 participations in update courses, professional development courses and informational activities, involving on average 1.2 training days per employee.

During the year, training activities were focused on the following main areas:

- training and updates on mandatory technical competences regarding safety and environment issues;
- training on special and critical processes in manufacturing;
- soft skills training: development of managerial skills (specific courses and participation at international conventions and seminars);
- information on health, safety, environment and data protection;
- privacy policy, following the update of the organisational structure;
- support for specialist and technical expertise with updates on the new “features” of software applications;
- support for internationalization with a focus on individual and group language training (French, English and Russian).
- education on cyber security.

Internal training accounted for 31% of the total provision. Using certified in-house trainers, safety, environment, manufacturing (special and critical processes), Classified information protection and privacy training was undertaken.

Regarding training methods, H1 2019 saw the continuation of the structured learning organization model, by which the organisation learns through the active involvement of managers in the design of training activities for both direct groups and cross-departmental groups, therefore supporting increased integration among the company population.

The following types of e-learning are utilised in particular: to support the HSE Area, to provide training on newly hired personnel safety and on the Seveso quarterlies; in the IT area, for “cyber security” training.

## COMMUNICATION AND SOCIAL RESPONSIBILITY

Avio promotes its image and its products through participation at major international events and a constant presence at Italian and international aerospace conferences regarding the research and development of new technologies in the specific field of space propulsion and launchers.

The company also develops its own network of scientific exchange and new product development through research collaborations with Italian and international universities and research institutes and through technical and operational collaborations with major European space agencies, in particular the Italian Space Agency (ASI), the French National Centre for Space Studies (CNES) and the European Space Agency (ESA).

### Events and shows

In addition to the events related to launches and the static tests commented upon in other sections of these financial statements, we highlight the following events in the first 6 months of the year:

- January 14 - London DGI - Presentation to analysts with management of the stand and CEO interview for TV channels;
- January 22-23, Brussels – 11<sup>th</sup> Space Policy Conference, CEO contribution;
- February 5, Kourou - First Ariane 5 Flight of 2019, Saudi Geostationary Satellite 1 mission;
- March 1, Colleferro – Launch of the internal Cyber Security communication campaign, both digitally and with notice boards and roll-ups at all company offices. The “Cyber Champion” programme focuses on protecting one’s self and the company from IT crime and the ongoing threats to the network, with a competition between multi-departmental teams challenging themselves on various themed modules;
- March 15, Milan – Investor Day: meetings with the financial community;

- March 18-19, Colleferro - Rainews24 and Focus with recordings and interviews at the Avio facilities;
- March 19-21, Abu Dhabi - Global Space Congress;
- March 20-21, Milan – STAR Conference;
- March 22, Kourou – VV14 Prisma flight, attended by delegation of journalists and joint communication with Leonardo, Telespazio, Asi and OHB Italia;
- March 29, Rome - The Risks and Sustainability Committee approved the 2018 Financial Communication, an instrument which highlights the company's commitment to pursuing concrete sustainability;
- April 8, Milan - Launch of the new company Instagram channel;
- April 9-14, Milan - Design week, Avio's offsite participation with display of a decorated Vega launcher model and stand;
- May 6-9, Washington – Satellite 2019;
- May 7, Sardinia – Successful “Firing test” of the Zefiro 40 motor;
- May 13, Colleferro – Colleferro Space Capital 2021;
- May 17, Colleferro - Rai “Costume e Società” - A day with the Space women of Avio;
- May 22, Colleferro – Visit of the Sinspective delegation from Japan;
- May 23, Segni – Event celebrating our Senior employees with involvement of the CEO and all Senior Managers;
- May 24, Colleferro – “Cassetta delle idee”: awarding of improvement proposals from employees;
- May 25, Segni – “Rocket re-challenge” contest for the launch of mini rockets built by students at La Sapienza's space propulsion laboratory;
- June 7, Turin - “Legend 2019” Lavazza event on major communication projects: presentation of the decorated Vega C model;
- June 11, Colleferro – Institutional visit from the Korean Kari (Korea Aerospace Research Institute) delegation

- June 20, Kourou - Second 2019 Ariane 5 flight - On the night of Thursday June 20 the second launch in 2019 of the Ariane 5 successfully took place (104th mission overall) from the French Guyana space centre. The European launcher correctly placed into orbit the T-16 (AT&T, DirecTV) and Eutelsat 7C satellites, which will provide broadcast TV and telecommunication services;
- June 11, Frascati – “Vega Day” Esrin event, with involvement of the CEO and various Avio PM contributions;
- June 18, Colleferro – Institutional visit from Foreign Sub-secretary Di Stefano;

## GROUP PRINCIPAL RISKS AND UNCERTAINTIES

### General economic risks

With regards to general economic conditions, the economic, equity and financial position of Avio is influenced by a number of macro-economic environment factors (including GDP movements, the cost of raw materials, the unemployment rate and interest rate movements), both in the countries in which the Group operates and at a global level, as a result of impacts upon the spending capacity of the individual countries (in particular in Europe) for the development of Space activities, through the national and European agencies.

Over recent years, the financial markets have featured particularly significant volatility with major repercussions on banks and financial institutions and, more generally, on the entire economy, therefore impacting the public accounts. The significant and widespread deterioration of market conditions was exacerbated by a serious and general difficulty in accessing credit, both for consumers and businesses, resulting in a lack of liquidity which affected industrial development and employment, therefore impacting the budgeting strategies of European states and consequently the spending capacity of the Space Agencies.

Although the governments and the monetary authorities have responded to this situation with extensive initiatives, including the cutting of interest rates to historic lows and the funding and bolstering of intermediaries, and although taking into consideration the signs indicating the exiting of recession for the leading economies, it currently is however not possible to predict whether and when the economy will return to pre-crisis levels, also in light of the worsening international geo-political environment and the slowing of Chinese economic growth, in addition to renewed volatility on the financial markets and tensions surrounding the financial situation and credit capacity of various countries.

Where this situation of significant weakness and uncertainty were to continue for significantly longer or worsen, particularly on the Group's market, the operations, strategies and prospects of the Group may be impacted, particularly with regards to production forecasts for future flights/launches of Group spacecraft and for new research and development programmes, with a consequent impact on the Group financial statements.

In addition, the space programmes have principally been executed through the use of funding provided by the governments and the European authorities. These provisions depend on government policies and in general economic conditions in Europe. The demand for launchers is therefore supported both by the public sector and the private sector.

Although the Group considers the space programme sector less volatile in consideration of the long-term nature of projects and the backlog developed, a contraction in economic growth, a recession or a financial crisis may reduce (even significantly) demand for the components produced by the Group, with consequent impacts on operations and on the financial statements of Avio and of the Group companies.

In addition, a weak economic environment may impact the Group's access to the capital markets or the availability of favourable conditions, with consequent impacts on operations and on the financial statements of Avio and of the Group companies.

### **Specific business risks**

The space programmes, due to their inherent complexity, strategic important and source of funding, are generally dependent on plans and decisions undertaken at government level in Europe, both by individual countries and as part of international agreements, implemented by specific national and supranational institutions and agencies. These plans seek to guarantee independent access to space by the European nations.

Changes to space access policies, both at a domestic and European or international level, and unfavourable economic conditions impacting the spending allocated to these policies by national governments and supranational institutions, may impact Group operational levels with possible repercussions for operations and the Group financial statements.

Group business depends in addition on a limited number of programmes and therefore clients. Any interruptions, temporary suspensions or cancellations to one or more major programmes constitutes a risk which may impact the Group's operations and financial statements. The backlog may therefore be subject to unexpected adjustments and may not therefore be indicative of future revenues or operating results.

The Group operates in the space sector principally through long-term contracts, often at fixed prices or with inflation-linked price reviews. Fixed price contracts present the risk that any additional costs may not be or are only partially reabsorbed by the client, with impacts on the Group's operations and financial statements.

In addition, for the recognition of revenues and the relative margins deriving from long-term works contracts, the percentage of advancement method is utilised, based on total cost estimates for the execution of contracts and the verification of the state of advancement of operations. Both these factors are by their nature significantly subject to management estimates, which in turn depend on the objective possibility and capacity to forecast future events. The occurrence of unpredictable events or forecast to a differing degree may result in an increase in costs incurred for the execution of long-term contracts, with impacts on the Group's operations and financial statements.

The Group is not a Launch Service Provider with regards to Vega launch services sales. Although the Group has control of Arianespace's Business Plan regarding the marketing of the Vega launcher and its successors, in order to determine volumes and prices that allow, according to recurring launch system costs, balanced budgeting for the launcher's development, where the Launch Service Provider does not correctly execute its role or adopts commercial practices which do not align with the Group's interest, this may have an impact on the operations and financial statements of the Group.

The position of Arianespace was the subject of an investigation by the European Antitrust Commission as the Ariane Group was expected to assume control of Arianespace, with the Commission approving the acquisition in December 2017. Recently, the market has significantly evolved, with demand for geostationary satellites declining (core Ariane

market) and demand for low orbit satellites on the rise (Vega core market). Therefore, in 2018 Avio prudently presented an appeal against the European Antitrust Commission before the European Court of Justice in order not to lose its right to request a review of the market reconstruction assumptions underlying the decision of the Commission, in view of the possible development of the market as described above.

Group clients are responsible for declaring the compliance of products before acceptance and sale and may entirely or partially reject them where such compliance is not declared. In this case, the warranty clauses require us to replace or repair the non-compliant component, incurring the associated costs in addition to any costs necessary to understand the problem. Where the associated costs are not covered by insurance, the Group's results may be impacted. Once accepted by clients, the Group is no longer responsible for damage deriving from the malfunctioning of products, except where the pre-existence of any defects which were not evident upon acceptance is demonstrated, with the consequent further obligation to restore or repair the defective products before final use and/or launch.

In addition, for any damage, whatever the cause, and including damage deriving from defects and/or the malfunctioning of products supplied by the Group, caused during the flight of the launchers, the launch service provider shall exclusively be responsible and, where applicable, the ESA and the French government.

The Group's industrial operations require the use and the processing of explosive or chemically hazardous materials. Although these activities are conducted in accordance with applicable rules, as per a specific Safety Management System to prevent accidents, and high-quality equipment and personnel are used, accidents may occur which result in interruptions of varying lengths to industrial operations with impacts on Group results.

## SUBSEQUENT EVENTS

### Business

#### **Vega**

On July 11, 2019, approx. two minutes after the launch of the Vega VV15 launcher (hereafter "VV15"), an anomaly occurred shortly after the second stage ignited (Zefiro 23), which led to the premature conclusion of the mission for the "Falcon Eye 1" satellite commissioned to Arianespace Société par actions simplifiée ("Arianespace") by the United Arab Emirates Government.

As set out in the contractual agreements governing relations between Avio, as Prime Contractor of the Vega launcher and Arianespace, as Launch Service Provider and Launch Operator, on the same date, the ESA and Arianespace appointed an Independent Investigatory Commission with the duty of establishing the possible causes of the anomaly.

According to the above-stated contractual agreements, from the point of the launcher's lift-off, the responsibility for the damage to third parties deriving from launcher malfunction is transferred to Arianespace, whatever the cause. Therefore, Arianespace shall exclusively be responsible for any damage from defects and/or the malfunctioning of products provided by Avio and/or by its sub-suppliers caused during the flight of the launchers as the launch operator and - where applicable - the French government.

In the proven case of Avio's responsibility for the pre-existence of any defects, not indicated on acceptance of the launcher by Arianespace, Avio may be called to reimburse Arianespace for costs incurred for consequent analysis works, where not reimbursed by the ESA.

With regards to the anomaly on the VV15, on September 5, 2019, the Independent Investigatory Commission issued its conclusions on the possible causes, identifying that most probable as a thermal-structural problem in the area of the front cap of the Zefiro 23 motor and indicating the corrective measures which should be taken, expressing their recommendations to permit the restart of Vega launches by the first quarter of 2020, in compliance with the applicable safety and reliability requirements.

Avio is currently working on implementing the corrective measures according to the timeframe indicated by the Commission in order to return to flights in the first quarter of 2020.

On July 12, 2019, the Inter-ministerial Committee for Space and Aerospace policies, together with the Italian Space Agency, guaranteed its full support to Avio in a statement issued by the President of the Council of Ministers in terms of providing continuity to its Space access activities, which are testament to the country's strategic capacity.

As the effect of the execution of the Commission's proposed audit plan based on tests and analyses is yet to be evaluated, as well as the corrective measures proposed by the Commission, any possible financial impacts as a result of this anomaly may not yet be quantified in terms of possible charges and the respective coverage provided by the existing agreements with Arianespace and with the ESA.

## **Ariane**

On August 6, 2019, the Ariane 5 (VA 249) was successfully launched, putting into orbit two long-term client telecommunications satellites: Intelsat 39, for the operator Intelsat and the EDRS-C satellite, based on a public-private partnership between the European Space Agency (ESA) and Airbus.

## **Other significant events**

### **VAT receivable collections**

Subsequent to period-end, following the reimbursement applications presented by the parent company Avio S.p.A. to the Tax Agency, in July and August 2019 VAT receivables for a total of Euro 28.0 million, in addition to interest of Euro 231 thousand, was received.

### **Settlement with FCA Partecipazioni S.p.A. regarding environmental charges**

As previously reported, under the “Agreement of Purchase and Sale” signed in 2003, FCA Partecipazioni S.p.A. was required to indemnify the Avio Group for reclamation activities, the charges to be incurred for environmental restoration, in addition to the post-operative management and maintenance of a number of areas located in the Colleferro industrial district.

Following years of collaboration between the parties in examining the indemnifiable environmental charges upon FCA Partecipazioni S.p.A. in accordance with the above-mentioned 2003 contract and the payment of indemnities to the Avio Group, in June 2017 FCA Partecipazioni S.p.A. communicated to the Avio Group the lapsing, according to FCA Partecipazioni S.p.A., of the applicability of the contractual obligations as a result of the alleged “change of control” through the Space2 S.p.A./Avio S.p.A. corporate transaction at the beginning of 2017, which led to the stock market listing of Avio S.p.A..

In July 2017, the Avio Group initiated an arbitration procedure with FCA Partecipazioni S.p.A. in order to declare the continuity of the above-sated contractual guarantee.

Within the arbitration process, also on the invitation of the Board of Arbitrators, the parties began negotiations to reach a settlement.

In this regard, on August 2, 2019, the parties agreed a settlement according to which FCA Partecipazioni S.p.A. committed to recognise to the Avio Group a total amount of Euro 19.9 million, of which Euro 11.3 million for reclamation activities and environmental restoration to be paid in the 2019-2023 period and Euro 8.6 million for post-operative management and maintenance to be paid in the 2019-2048 period, against the lapsing of the contractual guarantees which the company provided in the past to the Avio Group.

Simultaneous to the signing of the settlement, on August 2, 2019 FCA Partecipazioni S.p.A. paid the Avio Group approx. Euro 4.0 million as a portion of the overall settlement.

For further details, reference should be made to the “Legal and tax disputes and contingent liabilities” section of the Explanatory Notes.

### **Purchase of treasury shares**

The Board of Directors of Avio S.p.A on August 2, 2019., in execution of that approved by the Shareholders’ Meeting of April 26, 2019, launched a treasury share buy-back programme.

The programme shall be executed through purchases by an appointed intermediary, Equita SIM S.p.A., which will fully independently adopt decisions with regards to purchases, also in terms of their timing, in accordance with the applicable regulation and the above-stated Shareholders’ Meeting regulation.

In line with that set out by the Shareholders’ Meeting motion, the treasury share buy-back programme is undertaken to:

- a) efficiently utilize liquidity generated by company operations, also through medium-long-term investment in treasury shares;
- b) offer shareholders an additional tool to monetize their investment;
- c) use treasury shares as consideration in corporate actions, to receive funds for acquisition projects and/or in exchanges of shareholdings, or for other uses deemed of interest to the Company in financial, managerial and/or strategic terms;

The programme concerns the purchase of treasury shares for an amount not greater than Euro 5 million and up to a maximum of Euro 1,000,000.

The purchases shall be made on the MTA market (STAR segment) in accordance with Article 144-*bis*, paragraph 1, letter b) of Consob Regulation 11971/1999 and the other applicable provisions and in a manner which ensures compliance with the requirement for the equal treatment of shareholders as per Article 132 of the CFA, in addition to the operating means established under the Borsa Italiana S.p.A. organisation and management regulations.

The programme shall be executed, within the above share value and quantity limits, until October 28, 2020, i.e. within the 18-month deadline set by the authorisation granted by the Shareholders’ Meeting of April 29, 2019, subject to its withdrawal.

On September 12, 2019, following the purchases made, Avio S.p.A. holds 45.050 treasury shares, equal to 0,17% % of the number of shares comprising the share capital.

### **Incorporation of the company Avio France S.A.S.**

On August 19, 2019, the company Avio France S.A.S., with registered office in Paris, was incorporated. The company shall engage in launch system engineering operations in support of Arianespace and the ESA in the distribution of VEGA and VEGA-C launchers.

### **Outlook**

2019 volumes are expected to substantially be in line with 2018 - subject to the possible impacts indicated in the "Subsequent events" paragraph in terms of the Vega VV15 flight anomaly.

### **TRANSACTIONS WITH HOLDING COMPANIES, SUBSIDIARIES, JOINT VENTURES, ASSOCIATES AND INVESTEES**

Transactions of the parent Avio S.p.A. with shareholders and with subsidiaries and associates of these latter, with subsidiaries, joint ventures, associates and investees, and with subsidiaries and associates of these latter, consist of industrial, commercial and financial transactions carried out as part of ordinary operations and concluded at normal market conditions. In particular, these concern the supply of goods and services, including of an administrative-accounting, IT, personnel management, assistance and funding and treasury management nature.

## OTHER INFORMATION

In accordance with Article 40 of Legislative Decree 127/1991, we highlight that the parent company, following the above mentioned treasury shares buyback program, owns no. 45.050 of its shares, corresponding to the 0,17% of the share capital.

## CORPORATE GOVERNANCE

The company complies with the principles of the Self-Governance Code for Italian listed companies, prepared by the Corporate Governance Committee for listed companies, set up by Borsa Italiana and promoted by Borsa Italiana, ABI, Ania, Assogestioni, Assonime and Confindustria, latterly updated in July 2018, adjusting its Governance system to the indicated regulatory provisions.

The Self-Governance Code is available on the website of Borsa Italiana S.p.A. at [www.borsaitaliana.it/borsaitaliana/regolamenti/corporategovernance/codice2018clean.pdf](http://www.borsaitaliana.it/borsaitaliana/regolamenti/corporategovernance/codice2018clean.pdf).

In accordance with the regulatory obligations, the Corporate Governance and Ownership Structure Report is drawn up annually and (i) contains a general outline of the Corporate Governance System adopted by the company and (ii) information upon the ownership structure and compliance with the Self-Governance Code, including the main governance practices applied and the features of the internal control and risk management system, also with regards to financial disclosure.

For all details in relation to the corporate governance adopted by the company following the stock market listing and all corporate governance decisions undertaken until March 14, 2019, reference should be made to the Corporate Governance and Ownership Structure Report approved by the Board of Directors of Avio S.p.A. on March 14, 2019, prepared in compliance with Article 123-*bis* of the CFA and Article 89-bis of Consob Regulation 11971/1999 and in view of the recommendations of the Self-Governance Code, while also taking account of the reference documents prepared by Borsa Italiana S.p.A..

This Report is available on the company website at [http://avio-data.teleborsa.it/2019%2fRelazione-Corporate-Governance\\_20190328\\_072313.pdf](http://avio-data.teleborsa.it/2019%2fRelazione-Corporate-Governance_20190328_072313.pdf).

\* \* \*

September 12, 2019

for the Board of Directors  
The Chief Executive Officer and General Manager  
*Giulio Ranzo*

# **CONDENSED CONSOLIDATED HALF- YEAR FINANCIAL STATEMENTS AT JUNE 30, 2019**

<b>CONSOLIDATED BALANCE SHEET</b>	<b>Note</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<i>(in Euro)</i>			
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant & equipment	3.1	89,616,543	89,314,581
Rights of use	3.2	6,481,105	
Investment property	3.3	3,062,594	2,945,216
Goodwill	3.4	61,005,397	61,005,397
Intangible assets with definite life	3.5	118,312,895	116,953,729
Investments	3.6	5,879,056	8,137,948
Non-current financial assets	3.7	6,031,500	5,812,000
Deferred tax assets	3.8	76,529,332	76,150,361
Other non-current assets	3.9	78,377,171	66,520,882
<b>Total non-current assets</b>		<b>445,295,593</b>	<b>426,840,114</b>
<b>Current assets</b>			
Inventories and advances to suppliers	3.10	136,064,820	116,079,957
Contract work-in-progress	3.11	42,402,436	103,151,448
Trade receivables	3.12	3,495,218	7,017,095
Cash and cash equivalents	3.13	93,833,304	108,434,880
Current tax receivables	3.14	64,126,147	62,775,066
Other current assets	3.15	13,655,544	7,607,803
<b>Total current assets</b>		<b>353,577,469</b>	<b>405,066,249</b>
<b>TOTAL ASSETS</b>		<b>798,873,061</b>	<b>831,906,363</b>

<b>CONSOLIDATED BALANCE SHEET</b>	<b>Note</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<i>(in Euro)</i>			
<b>EQUITY</b>			
Share capital	3.16	90,964,212	90,964,212
Share premium reserve	3.17	144,255,918	144,255,918
Other reserves	3.18	14,150,164	14,580,499
Retained earnings		23,177,929	10,442,902
Group net profit for the period		6,786,515	24,337,954
<b>Total Group Equity</b>		<b>279,334,738</b>	<b>284,581,484</b>
<b>Equity attributable to non-controlling interests</b>	3.19	<b>7,241,117</b>	<b>11,404,835</b>
<b>TOTAL SHAREHOLDERS' EQUITY</b>		<b>286,575,855</b>	<b>295,986,319</b>
<b>LIABILITIES</b>			
<b>Non-current liabilities</b>			
Non-current financial liabilities	3.20	55,421,494	40,000,000
Employee benefit provisions	3.21	11,227,853	10,706,213
Provisions for risks and charges	3.22	23,495,364	7,841,101
Other non-current liabilities	3.23	122,271,727	122,452,889
<b>Total non-current liabilities</b>		<b>212,416,438</b>	<b>181,000,203</b>
<b>Current liabilities</b>			
Current financial liabilities	3.24	17,920,805	19,249,221
Current portion of non-current financial payables	3.25	75,000	60,000
Provisions for risks and charges	3.22	6,260,276	8,022,416
Trade payables	3.26	120,119,702	131,407,118
Advances from clients for contract work-in-progress	3.11	130,225,109	177,072,126
Current income tax liabilities	3.27	3,344,242	2,308,320
Other current liabilities	3.28	21,935,635	16,800,639
<b>Total current liabilities</b>		<b>299,880,768</b>	<b>354,919,841</b>
<b>TOTAL LIABILITIES</b>		<b>512,297,206</b>	<b>535,920,044</b>
<b>TOTAL LIABILITIES AND EQUITY</b>		<b>798,873,061</b>	<b>831,906,363</b>

<b>CONSOLIDATED INCOME STATEMENT</b>	<b>Note</b>	<b>H1 2019</b>	<b>H1 2018</b>
<i>(in Euro)</i>			
Revenues	3.29	190,997,094	202,004,928
Change in inventory of finished products, in progress and semi-finished		246,789	4,286,641
Other operating income	3.30	2,600,388	1,452,047
Consumption of raw materials	3.31	(60,232,613)	(64,882,242)
Service costs	3.32	(84,206,589)	(96,064,636)
Personnel expenses	3.33	(36,233,617)	(32,651,367)
Amortisation & Depreciation	3.34	(8,018,780)	(6,841,259)
Write-down and write-backs			
Other operating costs	3.35	(3,267,246)	(4,983,914)
Effect valuation of investments under equity method - operating income/(charges)	3.36	981,108	1,767,620
Costs capitalised for internal works	3.37	5,209,724	3,576,441
<b>EBIT</b>		<b>8,076,258</b>	<b>7,664,259</b>
Financial income	3.38	291,755	590,413
Financial charges	3.39	(467,422)	(824,925)
<b>NET FINANCIAL INCOME/(CHARGES)</b>		<b>(175,667)</b>	<b>(234,512)</b>
Effect valuation of investments under equity method - financial income/(charges)			
Other investment income/(charges)			
<b>INVESTMENT INCOME/(CHARGES)</b>		-	-
<b>PROFIT BEFORE TAXES</b>		<b>7,900,591</b>	<b>7,429,747</b>
Income taxes	3.40	(837,793)	(1,222,549)
<b>NET PROFIT FOR THE PERIOD</b>		<b>7,062,797</b>	<b>6,207,198</b>
-- of which: Owners of the parent		6,786,515	5,947,648
Non-controlling interests		276,282	259,549

<b>CONSOLIDATED COMPREHENSIVE INCOME STATEMENT</b>	<b>H1 2019</b>	<b>H1 2018</b>
<i>(in Euro)</i>		
<b>NET PROFIT (A)</b>	<b>7,062,797</b>	<b>6,207,198</b>
Other comprehensive income items:		
- Actuarial gains/(losses) - Actuarial gains/losses reserve	(505,303)	(467,781)
Gains/(losses) recorded directly to equity (which will be subsequently reclassified to P&L)		
- Gains/(losses) on cash flow hedge instruments recorded directly to interest rate cash flow hedge reserve		
Tax effect on other gains/(losses)	74,984	(2,919)
<b>TOTAL OTHER COMPREHENSIVE INCOME ITEMS, NET OF TAX EFFECT (B)</b>	<b>(430,319)</b>	<b>(470,700)</b>
<b>COMPREHENSIVE INCOME FOR THE PERIOD (A+B)</b>	<b>6,632,479</b>	<b>5,736,498</b>
-- of which: Owners of the parent	6,356,197	5,476,949
Non-controlling interests	276,282	259,549

**STATEMENT OF CHANGES IN EQUITY**  
(Euro thousands)

	Share capital	Share premium reserve	Other reserves				Retained earnings	Group result for the period	Total Group equity	Non-controlling interest equity	Total Equity
			Legal reserve	Interest rate cash flow hedge reserve	Actuarial gains/(losses) reserve	2015 share capital increase reserve					
<b>Equity at 31.12.2017</b>	<b>90,964</b>	<b>163,897</b>	<b>7</b>	<b>0</b>	<b>(3,234)</b>	<b>(1,456)</b>	<b>3,611</b>	<b>18,361</b>	<b>272,150</b>	<b>10,055</b>	<b>282,205</b>
Allocation of prior year result						8,344	(8,344)	0			0
Distribution of dividends of the parent company Avio S.p.A.							(10,017)	(10,017)			(10,017)
Distribution of dividends of the subsidiary Regulus S.A.										(1,760)	(1,760)
Allocation to reserves		(19,641)	18,185			1,456					
Effect on retained earnings attributable to the Group and reserves attributable to minority interests of transactions under common control						(1,556)		(1,556)	1,556		0
Other changes						21		21			21
Comprehensive income											
- Net profit for the period							24,338	24,338	1,500		25,838
- Other changes								0			0
- Actuarial gains/(losses), net of tax effect					(378)	24		(355)	54		(300)
Comprehensive income/(loss)	0	0	0	0	(378)	0	24	24,338	23,983	1,554	25,538
<b>Equity at 31/12/2018</b>	<b>90,964</b>	<b>144,256</b>	<b>18,193</b>	<b>0</b>	<b>(3,612)</b>	<b>0</b>	<b>10,443</b>	<b>24,338</b>	<b>284,581</b>	<b>11,405</b>	<b>295,986</b>
Allocation of prior year result						12,740	(12,740)	0			0
Distribution of dividends of the parent Avio S.p.A.							(11,598)	(11,598)			(11,598)
Distribution of dividends of the subsidiary Regulus S.A. (minority share)										(1,440)	(1,440)
Distribution of dividends of the subsidiary Spacelab S.p.A. (minority share)										(3,000)	(3,000)
Allocation to reserves											
Effect on retained earnings attributable to the Group and reserves attributable to minority interests of transactions under common control									0		0
Other changes						(5)		(5)			(5)
Comprehensive income											
- Net profit for the period							6,787	6,787	276		7,063
- Other changes								0			0
- Actuarial gains/(losses), net of tax effect					(430)			(430)	0		(430)
Comprehensive income/(loss)	0	0	0	0	(430)	0	0	6,787	6,356	276	6,632
<b>Equity at 30/06/2019</b>	<b>90,964</b>	<b>144,256</b>	<b>18,193</b>	<b>0</b>	<b>(4,043)</b>	<b>0</b>	<b>23,178</b>	<b>6,787</b>	<b>279,335</b>	<b>7,241</b>	<b>286,576</b>

## CONSOLIDATED CASH FLOW STATEMENT

(Euro thousands)

	H1 2019	H1 2018
<b>OPERATING ACTIVITIES</b>		
Net profit for the period	7,063	6,207
Adjustments for:		
- Income taxes	838	1,223
- (Income)/charges from measurement at equity of investment in Europropulsion	(981)	(1,768)
- Financial (Income)/Charges	176	235
- Amortisation & Depreciation	8,019	6,841
Dividends received from Europropulsion S.A. joint control company	3,240	3,080
Net change provisions for risks and charges	13,892	(1,795)
Net change employee provisions	16	216
Changes in:		
- Inventories	(19,985)	8,751
- Contract work-in-progress & advances	13,902	(60,185)
- Trade receivables	3,522	3,867
- Trade payables	(11,287)	22,463
- Other current & non-current assets	(19,559)	752
- Other current & non-current liabilities	2,449	8,901
Income taxes paid	(304)	(476)
Interest paid	(143)	(120)
<b>Net liquidity generated/(employed) in operating activities</b>	<b>(A) 857</b>	<b>(1,807)</b>
<b>INVESTING ACTIVITIES</b>		
Investments in:		
- Tangible assets and investment property	(3,660)	(1,635)
- Intangible assets with definite life	(5,380)	(4,795)
- Equity Investments	0	
Disposal price of tangible, intangible & financial assets		
<b>Liquidity generated (employed) in investing activities</b>	<b>(B) (9,040)</b>	<b>(6,430)</b>
<b>FINANCING ACTIVITIES</b>		
Additional EIB loan tranche	10,000	
Centralised treasury effect with Europropulsion S.A. joint control company	(2,500)	(13,510)
Dividends paid by the parent Avio S.p.A.	(11,598)	(10,017)
Dividends paid by subsidiary Regulus S.A. of minority shareholders	(1,440)	(1,760)
Other changes to financial assets and liabilities	(881)	
<b>Liquidity generated (employed) in financing activities</b>	<b>(C) (6,419)</b>	<b>(25,287)</b>
<b>INCREASE/(DECREASE) IN NET CASH AND CASH EQUIVALENTS</b>	<b>(A)+(B)+(C) (14,602)</b>	<b>(33,524)</b>
<b>NET CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<b>108,435</b>	<b>107,033</b>
<b>NET CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b>93,833</b>	<b>73,509</b>

## EXPLANATORY NOTES TO THE CONDENSED CONSOLIDATED HALF-YEAR FINANCIAL STATEMENTS AT JUNE 30, 2019

### 1. GENERAL INFORMATION

Avio S.p.A. (the “Company” or the “Parent Company”) is a limited liability company incorporated in Italy and registered at the Rome Companies Registration Office, with Registered Office at Rome, Via Leonida Bissolati, No. 76.

The Company was incorporated on May 28, 2015 under the name Space2 S.p.A., an Italian-registered Special Purpose Acquisition Company (“SPAC”), as an SIV (Special Investment Company) in accordance with the Borsa Italiana regulation, whose shares were listed on July 28, 2015 on the Professional Segment of the Investment Vehicles Market (MIV) organised and managed by Borsa Italiana S.p.A..

On March 31, 2017, Space2 S.p.A. acquired the company Avio S.p.A., parent company of the Avio Group and, on April 10, 2017 Avio S.p.A. was merged by incorporation. Space2 S.p.A. also changed its name to “Avio S.p.A.” following the above-mentioned operation.

Avio S.p.A. holds at June 30, 2019, directly or indirectly, investments in five subsidiary companies (Spacelab S.p.A., Regulus S.A., Avio Guyana SAS, AS Propulsion International BV and Avio India Aviation Aerospace Private Ltd. in liquidation) and in a jointly-controlled company (Europropulsion S.A.) included in the consolidation scope of these financial statements (collectively the “Group” or the “Avio Group”).

The consolidation scope was unchanged in the first half of 2019.

These Group consolidated financial statements are presented in Euro which is the Company’s principal functional currency. The Consolidated Balance Sheet, the Consolidated Income Statement and the Consolidated Comprehensive Income Statement are reported in units of Euro; the Statement of Changes in Consolidated Equity and the Consolidated Cash Flow Statement, as well as these Explanatory Notes, are reported in thousands of Euro where not otherwise indicated. The foreign subsidiaries are included in the consolidated financial statements in accordance with the accounting policies described in the notes below.

### 2. SIGNIFICANT ACCOUNTING POLICIES

#### 2.1. Accounting Standards for the preparation of the condensed financial statements

These condensed half-year financial statements at June 30, 2019 were prepared in accordance with International Accounting Standards (hereafter also “IFRS”) issued by the International Accounting Standards Board (“IASB”) and approved by the European Union. IFRS refers to the International Financial Reporting Standards, the revised international accounting standards (“IAS”) and all of the interpretations of the International Financial Reporting Interpretations Committee (“IFRIC”) - previously known as the Standing Interpretations Committee (“SIC”).

In the preparation of these Condensed half-year financial statements, drawn up in accordance with IAS 34 – *Interim Financial Reporting*, the same accounting standards were adopted as for the preparation of the consolidated financial statements of the Avio Group at December 31, 2018, except for that outlined in the Explanatory Notes – “Accounting standards, amendments and interpretations applied from January 1, 2019” paragraph. Therefore, these financial statements must be read together with the consolidated financial statements of the Avio Group at December 31, 2018.

The preparation of condensed financial statements in application of IFRS requires estimates and assumptions on the values of the assets and liabilities, on the disclosures relating to assets and contingent liabilities at the reporting date and on the revenues and costs in the period. If in the future these estimates and assumptions, which are based on the best current valuations made by management, should differ from actual circumstances, they will be modified appropriately in the period in which the circumstances change.

Some valuation processes, in particular the most complex such as the determination of any loss in value of non-current assets or the valuation of contingent liabilities, are generally made on a complete basis on the preparation of the annual accounts, when all the necessary information is available, except where there are specific indications of impairment which require an immediate valuation of any loss in value or an accrual is required to the provision for risks and charges.

## 2.2. Financial Statements

The Condensed half-year financial statements at June 30, 2019 consist of the Consolidated Balance Sheet, the Consolidated Income Statement, the Consolidated Comprehensive Income Statement, the Statement of changes in Consolidated Equity, the Consolidated Cash Flow Statement and the Explanatory Notes.

The financial statements of the Group are presented as follows:

- for the Consolidated Balance Sheet, the separate presentation of non-current and current assets and of non-current and current liabilities, generally adopted by industrial and commercial groups;
- for the Consolidated Income Statement, the classification of costs based on their nature, with separate indication of the results from discontinued operations, where applicable;
- for the Consolidated Comprehensive Income Statement, the adoption of the separate presentation (“two-statement approach”) with indication of other gains/losses net of the relative tax effect;
- for the Consolidated Cash Flow Statement, the adoption of the indirect method.

## 2.3. Comparative information

In accordance with IAS 34, these condensed half-year financial statements at June 30, 2019 present the 2018 comparative figures for the Balance Sheet items (Consolidated Balance Sheet) and the first half year 2018 for the

Income Statement items (Consolidated Income Statement, Consolidated Comprehensive Income Statement, Statement of changes in Consolidated Equity and Consolidated Cash Flow Statement).

#### **2.4. Consolidation Principles**

The consolidation principles adopted are in line with those utilised for the preparation of the consolidated financial statements at December 31, 2018 of the Avio Group, to which reference should be made for further information.

#### **2.5. Translation of foreign entity financial statements**

The financial statements of each company consolidated are prepared in the primary currency where they operate. For the condensed half-year financial statements, the financial statements of each foreign entity which utilises a currency other than the Euro is translated into this latter, as the Group's functional currency and the consolidated financial statement presentation currency. The transactions in currencies other than the Euro are translated into the functional currency at the exchange rate at the date of the transaction and the exchange gains and losses from the subsequent closure of these transactions are recorded in the income statement. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rates at the reporting date. The positive and/or negative differences between the values adjusted to the closing exchange rate and those recorded in the period are also recognised in the income statement. Non-monetary assets valued at historical cost in currencies other than the functional currency are not translated at the current exchange rate at the reporting date.

#### **2.6. Consolidation Scope**

The Condensed half-year financial statements at June 30, 2019 include the financial statements of the parent company, of the Italian and overseas companies in which it holds directly or indirectly at June 30, 2019 more than 50% of the share capital, consolidated under the line-by-line method, and the financial statements of the company Europropulsion S.A., held 50% jointly with another shareholder, consolidated under the equity method.

The consolidation scope at June 30, 2019 was as follows:

<b>Companies included in the consolidation scope at June 30, 2019</b>	<b>Holding</b>
<b>Parent</b>	
Avio S.p.A.	-
<b>Companies consolidated by the line-by-line method</b>	
Spacelab S.p.A.	70%
Regulus S.A.	60%
SE.CO.SV.IM. S.r.l.	100% (*)
Avio Guyana SAS	100%
ASPropulsion International B.V.	100%
Avio India Aviation Aerospace Private Limited (**)	100% (***)
<b>Jointly controlled companies, measured at equity</b>	
Europropulsion S.A.	50%
<b>Associates, measured at equity</b>	
Termica Colleferro S.p.A.	40%

(\*) Holding through ASPropulsion International B.V.

(\*\*) The company is in liquidation. No financial commitments are expected for the Group related to the liquidation.

(\*\*\*) Investment held in part directly by Avio S.p.A. (95%) and in part through ASPropulsion International B.V. (5%).

The non-controlling interest in the equity and results of the subsidiaries consolidated are recorded separately from the Group equity, in the account "Non-controlling interest equity".

## 2.7. Accounting policies

The accounting policies adopted are in line with the recognition and measurement criteria utilised in the preparation of the consolidated financial statements at December 31, 2018 of the Avio Group, to which reference should be made for further information, with the exception of that outlined in the following paragraph.

## 2.8. New accounting standards

### **IFRS accounting standards, amendments and interpretations applied from January 1, 2019**

The following IFRS accounting standards, amendments and interpretations were applied for the first time by the Group from January 1, 2019:

- on January 13, 2016, the IASB published the new standard **IFRS 16 - Leases**, which replaces IAS 17 – *Leases*, as well as the interpretations IFRIC 4 *Determining whether an Arrangement contains a Lease*,

*SIC-15 Operating Leases—Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.*

The new standard provides a new definition of leases and introduces a criterion based on control (right of use) of an asset to distinguish leasing contracts from service contracts, identifying essential differences: the identification of the asset, the right of replacement of the asset, the right to obtain substantially all the economic benefits from the use of the asset and the right to use the asset underlying the contract.

It establishes a single model to recognise and measure leasing contracts for the lessee, which provides also for the recognition of operating leases under assets with a related financial payable. This Standard does not contain significant amendments for lessors.

The standard will be effective from January 1, 2019, although advance application is permitted.

The Company completed its preliminary assessment of the potential impacts of the application of the new Standard as at the transition date (January 1, 2019). This process is divided into stages, including the full mapping and analysis of the contracts potentially including a lease in order to understand the main clauses of such contracts that are relevant to IFRS 16.

The Company adopted the option provided for in **IFRS 16:C3**, which permits reference to be made to the conclusions previously reached on the basis of IFRIC 4 and IAS 17 regarding the operating lease quantification for a specific contract. This option was applied to all contracts, as provided for in **IFRS 16:C4**.

The *implementation* process for the Standard, involving set-up of the IT infrastructure for the accounting management of the Standard and the alignment of the administrative and control processes applicable to the critical areas governed by the Standard, is in the process of being completed. This process is expected to be completed in early 2019.

The Group shall apply the new standard utilising the modified retrospective method. In particular, with regard to lease contracts previously classified as operating leases, the Company will measure the items below as follows:

- a) financial assets at the present value of the residual future payments at the transition date, discounted according to the incremental borrowing rate applicable to each contract at the transition date;
- b) a right of use equal to the value of the financial liability at the transition date, net of any prepayments and accruals associated with the lease carried in the balance sheet at the reporting date of these financial statements.

The following tables show the estimated impact of the adoption of IFRS 16 as at the transition date of January 1, 2019 on the Avio Group's consolidated financial statements and the separate financial statements of Avio S.p.A (figures millions of Euro):

<b>ASSETS</b>	<b>Effects at the transition date 01.01.2019 on the consolidated financial statements of the Avio Group</b>
<b>Non-current assets</b>	
Right of Use Buildings	5
Usage rights Motor Vehicles	2
<b>Total</b>	<b>7</b>

<b>LIABILITIES</b>	<b>Effects at the transition date 01.01.2019 on the consolidated financial statements of the Avio Group</b>
<b>Non-current liabilities</b>	
Financial liabilities for non-current leases	5
<b>Current liabilities</b>	
Financial liabilities for current leases	2
<b>Total</b>	<b>7</b>

In adopting IFRS 16, the Company intends to opt for the exemption permitted under paragraph IFRS 16:5(a) in respect of short-term leases for the following types of assets: hardware and certain IT materials.

Likewise, the Company intends to opt for the exemption permitted under IFRS 16:5(B) with regard to lease contracts for which the underlying asset qualifies as a "low-value asset" (i.e., the asset underlying the lease contract does not exceed Euro 5,000.00 when new). The contracts for which the exemption has been applied primarily fall within the following categories:

- computers, telephones and tablets;
- printers;
- other electronic devices;
- furniture and fittings.

For such contracts, the introduction of IFRS 16 will not entail the recognition of the financial liability associated with the lease and relevant right of use. Rather, the lease payments will be taken to the income statement on a straight-line basis over the term of the relevant contracts.

As per IFRS 16, the company will not separate the non-lease components from leases. The categories of assets for which the Company intends to exercise the exemption granted by IFRS 16:15 are as follows:

- automobiles;
- apartments.

The non-lease components of such assets will not be separated and accounted for separately from the lease components. Rather, they will be considered together with the lease components when determining the financial liability associated with the lease and relevant right of use.

In addition, with regard to transition rules, the Company intends to opt for the following practical expedients available in the event of the selection of the modified retrospective transition method (only the exemptions that the Company has decided to apply are indicated):

- classification of contracts set to expire within 12 months of the transition date as short-term leases. The lease payments for such contracts will be taken to the income statement on a straight-line basis;
- exclusion of the initial direct costs from the measurement of the right of use at January 1, 2019;
- use of the information available at the transition date to determine the lease term, with particular regard to the exercise of extension and early termination options.

The transition to IFRS 16 introduces some elements of professional judgment that entail the definition of certain accounting policies and the use of assumptions and estimates with regard to the lease term and the definition of the incremental borrowing rate. The main such assumptions and estimates are summarized below:

- the Company has decided not to apply IFRS 16 for contracts containing a lease the underlying asset for which is an intangible asset;
- *lease term*: identification of the lease term is a very important issue since the form, legislation and commercial practices of property lease contracts vary considerably from one jurisdiction to another. On the basis of its historical experience, the Group has adopted the accounting policy of including not only the period that cannot be cancelled, but also the first contractual extension where such depends solely on the Group. For contracts with automatic extensions for an annual (or shorter) period, the Group has adopted the accounting policy of estimating the lease term at an average of six years, based on the historical evidence and the assessment of the extension period as “reasonably certain” given significant penalties, in the broad meaning of the term, for the lessor in terminating the contract. In cases of property lease contracts with multi-year extensions at the discretion of both parties, the Group has assessed the specific facts and circumstances, together with the penalties, broadly construed, associated with a potential termination of the contract.
- definition of the *incremental borrowing rate*: since most lease contracts entered into by the Group do not include an implicit interest rate, the discount rate to be applied to future lease payments has been taken as the risk-free rate in each country in which the contracts were entered into, with maturities commensurate with the term of the specific lease contract, plus the specific credit spread of the subsidiary/Group.

- The IASB published an amendment to **IFRS 9 “Prepayment Features with Negative Compensation”** on October 12, 2017. This document specifies that instruments which provide for an advance repayment could comply with the Solely Payments of Principal and Interest (“SPPI”) test also in the case where the “reasonable additional compensation” to be paid in the event of advance repayment is a “negative compensation” for the lender.

The adoption of this amendment does not have effects on the consolidated financial statements of the Group.

- The IASB published the interpretation “**Uncertainty over Income Tax Treatments**” on June 7, 2017. The interpretation deals with uncertainties on the tax treatment to be adopted for income taxes. In particular, the interpretation requires an entity to analyse uncertain tax treatments (individually or collectively, depending on their characteristics), always assuming that the tax authority will examine the tax position in question, with access to all relevant information. Where the entity deems it improbable that the tax authority will accept the tax treatment adopted, the entity must reflect the uncertainty in the measurement of its current and deferred income taxes. In addition, the document does not contain any new disclosure obligations, but underlines that an entity should establish whether it will be necessary to provide information on considerations made by management and the relative uncertainty concerning the accounting of income taxes, in accordance with IAS 1.

The new interpretation was applied from January 1, 2019.

The adoption of this amendment does not have effects on the consolidated financial statements of the Group.

- On December 12, 2017 the IASB published the document “**Annual Improvements to IFRSs 2015-2017 Cycle**” which reflects the amendments to some standards within the annual improvements process. The principal changes relate to:
  - IFRS 3 *Business Combinations* and IFRS 11 *Joint Arrangements*: the amendment clarifies that when an entity obtains control a business which represents a joint operation, it must remeasure its previous holding in the business. This process however is not required in relation to obtaining joint control.
  - IAS 12 *Income Taxes*: The amendment clarifies that all the tax effects related to dividends (including the payments on financial instruments classified within equity) must be recognised in line with the transaction which generated these profits (profit or loss, OCI or net equity).
  - IAS 23 *Borrowing costs*: the amendment clarifies that in the case of loans which remain in place even after the qualifying asset is ready for use or for sale, these become part of the overall financing utilised to calculate the borrowing costs.

The adoption of this amendment does not have effects on the consolidated financial statements of the Group.

- The IASB published the document “**Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)**” on February 7, 2018. The document clarifies that an entity must recognise a change (i.e. a curtailment or a settlement) of a defined benefit plan. The amendments require the entity to update their assumptions and remeasure the net liability or asset from the plan. The amendments clarify that after the occurrence of this event, an entity utilises updated assumptions to measure the current service cost and interest for the remainder of the period.

The adoption of this amendment does not have effects on the consolidated financial statements of the Group.

- On October 12, 2017, the IASB published the document “**Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)**”. This document clarifies the need to apply IFRS 9, including the impairment requirements, to other long-term interests in associates and joint ventures for which the equity method is not applied.

The adoption of this amendment does not have effects on the consolidated financial statements of the Group.

## **IFRS STANDARDS, AMENDMENTS AND INTERPRETATIONS NOT YET APPROVED BY THE EUROPEAN UNION**

At the date of the present Half-Year Report at June 30, 2019, the relevant bodies of the European Union have not yet concluded the process necessary for the implementation of the amendments and standards described below.

- on May 18, 2017, the IASB published **IFRS 17 - Insurance Contracts** which replaces IFRS 4 - Insurance Contracts.

The new standard ensures that an entity provides pertinent information which accurately presents the rights and obligations under insurance contracts. The IASB developed the standard in order to eliminate inconsistencies and weaknesses in the existing accounting policies, providing a single principle-based framework to take account of all types of insurance contracts, including reinsurance contracts held by an insurer.

The new standard sets out in addition presentation and disclosure requirements to improve comparability between entities belonging to the same sector.

It measures insurance contracts on the basis of a General Model or a simplified version of such, called the Premium Allocation Approach (“PAA”).

The main features of the General Model are:

- the estimates and assumptions of future cash flows always refer to the current portion;

- the measurement reflects the time value of money;
- the estimates include an extensive use of observable market information;
- a current and clear risk measurement exists;
- the expected profit is deferred and aggregated into groups of insurance contracts on initial recognition; and,
- the expected profit is recognised in the period of contractual coverage, taking account of adjustments from changes in the assumptions on cash flows for each group of contracts.

The PPA approach involves the measuring of the liability for the residual coverage of a group of insurance contracts on the condition that, on initial recognition, the entity expects that this liability reasonably reflects an approximation of the General Model. Contracts with a coverage period of one year or less are automatically considered appropriate for the PPA approach. The simplifications from application of the PPA method do not apply to the valuation of liabilities for existing claims, which are measured with the General Model. However, it is necessary to discount these cash flows where it is expected that the balance will be paid or received within one year from the date on which the claim occurred.

The entity should apply the new standard to insurance contracts issued, including reinsurance contracts issued, reinsurance contracts held and also investment contracts with a discretionary participation feature (DPF).

The standard is effective from January 1, 2021, although advance application is permitted, only for entities applying IFRS 9 – Financial Instruments and IFRS 15 - Revenue from Contracts with Customers.

The directors, as not operating in the insurance sector, do not expect that the adoption of this standard will have a significant impact on the consolidated financial statements.

- on October 22, 2018, the IASB published the document ***“Definition of a Business (Amendments to IFRS 3)”***. The document provides clarification regarding the definition of business for the purposes of the proper application of IFRS 3. In particular, the amendment clarifies that while a business normally yields an output, the existence of an output is not strictly necessary to identify a business when there is an integrated set of activities and assets. However, in order to meet the definition of a business, an integrated set of activities and assets must include, at minimum, an input and a substantial process that together contribute significantly to the capacity to create output. For this purpose, the IASB has replaced the term “capacity to create output” with “capacity to contribute to the creation of output” to clarify that a business may exist even without all the inputs and processes necessary to create an output.

The amendment also introduced an optional test (“concentration test”) for an entity to determine whether a set of activities and assets acquired is not a business. If the test yields a positive result, the set of activities and assets acquired does not constitute a business and the Standard does not require further verification. If the test yields a negative result, the entity must conduct additional analyses of the activities and assets acquired to identify the presence of a business. To this end, the amendment adds numerous examples illustrating IFRS 3 with the aim of ensuring an understanding of the practical application of the new definition of a business in specific cases. The amendments apply to all business combinations and acquisitions of activities after January 1, 2020, although advance application is permitted.

Considering that the amendment will be applied to any new acquisitions concluded with effect from January 1, 2020, any effects will be recognized in the consolidated financial statements as at and for years ending after that date.

- on October 31, 2018, the IASB published the document **“Definition of Material (Amendments to IAS 1 and IAS 8)”**. The document modified the definition of “material” in IAS 1 – *Presentation of Financial Statements* and IAS 8 – *Accounting Policies, Changes in Accounting Estimates and Errors*. The amendment aims to provide a more specific definition of “material” and introduce the concept of “obscured information” alongside the concepts of omitted or misstated information previously included in the two amended Standards. The amendment clarifies that information is obscured if it is described in a way that results in an effect for the primary users of the financial statements similar to that which would have resulted if the information in question had been omitted or misstated.

The Directors do not expect this document to have a significant impact on the Group consolidated financial statements. However, the possible effects are currently under assessment.

- on September 11, 2014, the IASB published an amendment to **IFRS 10 and IAS 28 Sales or Contribution of Assets between an Investor and its Associate or Joint Venture**. The document was published in order to resolve the current conflict between IAS 28 and IFRS 10.

According to IAS 28, the profit or loss from the sale or conferment of a non-monetary asset to a joint venture or associate in exchange for a share of the capital of this latter is limited to the share held in the joint venture or associate by external investors to the transaction. On the other hand, IFRS 10 provides for the recognition of the entire profit or loss in the case of loss of control of a subsidiary, also if the entity continues to hold a non-controlling holding, including also upon the sale or conferment of a subsidiary to a joint venture or associate. The amendments introduced establish that for the disposal/conferment of an asset or of a subsidiary to a joint venture or associated company, the amount of profit or loss to be recognized to the financial statements of the disposing company/conferring company depends on whether the asset or the subsidiary disposed of/conferred constitutes a business, in the definition established by IFRS 3. In the case in which the assets or the subsidiary disposed of/conferred represents a business, the entity should recognize the profit or the loss on the entire share previously held; while, in the contrary case, the share of the profit or loss concerning the stake still held by the entity should be eliminated. Currently, the IASB has suspended the application of this amendment.

### 3. COMPOSITION, COMMENTS AND CHANGES IN THE PRINCIPAL BALANCE SHEET ACCOUNTS AND OTHER DISCLOSURES

#### **NON-CURRENT ASSETS**

##### **3.1. PROPERTY, PLANT & EQUIPMENT**

The values of Property, plant and equipment at June 30, 2019 are shown net of the accumulated depreciation provisions, as illustrated in the table below (Euro thousands).

The table illustrates the comparison between the balances in Property, plant and equipment of the Avio Group at June 30, 2019 and December 31, 2018.

	30/06/2019			31/12/2018		
	Gross value	Accumulated depreciation	Net book value	Gross value	Accumulated depreciation	Net book value
Land	15,806	-	15,806	15,806	-	15,806
Buildings	33,644	(16,933)	16,712	33,575	(16,329)	17,246
Plant and machinery	77,999	(54,878)	23,120	75,476	(52,995)	22,480
Industrial and commercial equipment	18,058	(16,013)	2,045	17,892	(15,688)	2,205
Other assets	9,029	(6,746)	2,283	8,787	(6,361)	2,426
Assets in progress and advances	29,650	-	29,650	29,151	-	29,151
<b>Total</b>	<b>184,186</b>	<b>(94,569)</b>	<b>89,616</b>	<b>180,687</b>	<b>(91,372)</b>	<b>89,315</b>

The changes between December 31, 2018 and June 30, 2019 in the gross values of property, plant and equipment are illustrated in the table below (Euro thousands):

Gross value	31/12/2018	Investments	Decreases for disposals	Reclassifications and other changes	30/06/2019
Land	15,806	-	-	-	15,806
Buildings	33,575	69	-	-	33,644
Plant and machinery	75,476	2,528	(5)	-	77,999
Industrial and commercial equipment	17,892	213	(47)	-	18,058
Other assets	8,787	258	(28)	13	9,029
Assets in progress and advances	29,151	499	-	-	29,650
<b>Total</b>	<b>180,687</b>	<b>3,567</b>	<b>(81)</b>	<b>13</b>	<b>184,186</b>

The increases in the period of Euro 3,567 thousand mainly concerns production machinery.

Between December 31, 2018 and June 30, 2019, the changes to accumulated depreciation were as follows (in Euro thousands):

Gross value	31/12/2018	Increases	Decreases for disposals	Reclassifications and other changes	30/06/2019
Land	-	-	-	-	-
Buildings	(16,329)	(604)	-	-	(16,933)
Plant and machinery	(52,995)	(1,888)	5	-	(54,878)
Industrial and commercial equipment	(15,688)	(345)	20	-	(16,013)
Other assets	(6,361)	(373)	1	(13)	(6,746)
<b>Total</b>	<b>(91,372)</b>	<b>(3,211)</b>	<b>27</b>	<b>(13)</b>	<b>(94,569)</b>

The depreciation was calculated in relation to the estimated useful life and the obsolescence incurred by these assets.

### 3.2. RIGHTS OF USE

The Group applied, for the preparation of these half-year financial statements, IFRS 16 - Leases, published by the IASB on January 13, 2016 and obligatory from January 1, 2019.

In this regard, the Group adopted the option provided for in IFRS 16:C3, which permits reference to be made to the conclusions previously reached on the basis of IFRIC 4 and IAS 17 regarding the operating lease quantification for a specific contract. This option was applied to all contracts, as provided for in IFRS 16:C4.

This new standard was applied utilising the modified retrospective approach. In particular, with regard to lease contracts previously classified as operating leases, the Group recognised the following:

- a financial liability, at the present value of the residual future payments at the transition date, discounted according to the incremental borrowing rate applicable to each contract at the transition date;
- a right of use equal to the value of the financial liability at the transition date, net of any prepayments and accruals associated with the lease carried in the balance sheet at the reporting date of these financial statements.

The values of Rights of use at June 30, 2019 are shown net of the accumulated depreciation provisions, as illustrated in the table below (Euro thousands).

	30/06/2019			31/12/2018		
	Gross value	Accumulated depreciation	Net book value	Gross value	Accumulated depreciation	Net book value
Rights of use	7,237	(755)	6,481	-	-	-
<b>Total</b>	<b>7,237</b>	<b>(755)</b>	<b>6,481</b>	<b>-</b>	<b>-</b>	<b>-</b>

The gross values of these rights at June 30, 2019 (in Euro thousands) are reported below:

Gross value	31/12/2018	Increases	Decreases	Reclassifications	30/06/2019
			for disposals	and other changes	
Rights of use	-	7,237	-	-	7,237
<b>Total</b>	<b>-</b>	<b>7,237</b>	<b>-</b>	<b>-</b>	<b>7,237</b>

The accumulated depreciation of these rights in the first half of 2019 is reported below (in Euro thousands):

Gross value	31/12/2018	Increases	Decreases	Reclassifications	30/06/2019
			for disposals	and other changes	
Rights of use	-	(755)	-	-	(755)
<b>Total</b>	<b>-</b>	<b>(755)</b>	<b>-</b>	<b>-</b>	<b>(755)</b>

The Rights of use recognised in applying IFRS 16 are mainly the following:

- present value of future payments for the lease of the electro-duct and relative electrical infrastructure at the combined cycle co-generation thermo-electrical station owned by the associate Termica Colleferro S.p.A.;
- present value of future payments regarding the following leases from third parties:
  - leasing of office and industrial use land and buildings at Airola (Campania) and Villaputzu (Sardinia);
  - lease of apartments for employees in Guyana;
  - lease of company cars.

### 3.3. INVESTMENT PROPERTY

The values of Investment property at June 30, 2019 are shown net of the accumulated depreciation provisions, as illustrated in the table below (Euro thousands).

The table illustrates the comparison between the balances in Investment property of the Avio Group at June 30, 2019 with December 31, 2018.

	30/06/2019			31/12/2018		
	Gross value	Accumulated depreciation	Net book value	Gross value	Accumulated depreciation	Net book value
Land	1,834	-	1,834	1,834	-	1,834
Buildings & facilities	2,201	(973)	1,228	2,052	(941)	1,111
<b>Total</b>	<b>4,035</b>	<b>(973)</b>	<b>3,063</b>	<b>3,887</b>	<b>(941)</b>	<b>2,945</b>

Investment property refers to part of the land, buildings and facilities within the Colleferro industrial complex (Rome) owned by the subsidiary Secosvim, leased to third parties. Secosvim undertakes property management activities.

The changes between December 31, 2018 and June 30, 2019 in the gross values of investment property of the Avio Group are illustrated in the table below (Euro thousands):

Gross value	31/12/2018	Increases	Decreases	Reclassifications and other changes	30/06/2019
Land	1,834	-	-	-	1,834
Buildings & facilities	2,052	149	-	-	2,201
<b>Total</b>	<b>3,887</b>	<b>149</b>	-	-	<b>4,035</b>

Between December 31, 2018 and June 30, 2019, the changes to accumulated depreciation were as follows (in Euro thousands):

Accumulated depreciation	31/12/2018	Depreciation	Utilisations	Reclassifications and other changes	30/06/2019
Land	-	-	-	-	-
Buildings & facilities	(941)	(31)	-	-	(973)
<b>Total</b>	<b>(941)</b>	<b>(31)</b>	-	-	<b>(973)</b>

The depreciation in the period was calculated in relation to the estimated useful life and the obsolescence incurred by these assets.

### 3.4. GOODWILL

The goodwill recognised at June 30, 2019 for an amount of Euro 61,005 thousand, unchanged on December 31, 2018, relates to the Purchase Price Allocation at March 31, 2017 commented upon in the Directors' Report.

As indicated in Note 2.7. Accounting standards and policies, where it is reported that the accounting standards adopted in preparing the condensed consolidated half-year financial statements are in line with the recognition and measurement criteria utilised in the preparation of the consolidated financial statements at December 31, 2018 of the Avio Group and to which reference should be made, goodwill is not amortised but written down for any impairment. The Group assesses the recoverability of goodwill at least annually, or more frequently where specific events and circumstances arise which may result in long-term value reductions, through impairment tests on each of the Cash Generating Units (CGU's). The CGU identified by the Group for the monitoring of goodwill coincides with the level of aggregation required by IFRS 8 - *Operating segments*, which for the Group is identified by the *Space business* alone.

Goodwill allocated to the Space CGU was subject to an impairment test at December 31, 2018 which did not indicate the need for a write-down of the carrying amount of goodwill at that date.

At June 30, 2019, the presence of impairment indicators was assessed and, in their absence, the value written to the financial statements was not submitted to additional recoverability checks.

In terms of the methodology and the main assumptions adopted for the impairment test at December 31, 2018, reference should be made to the consolidated financial statements at December 31, 2018 of the Avio Group.

### 3.5. INTANGIBLE ASSETS WITH DEFINITE LIFE

The values of Intangible assets with definite life at June 30, 2019 are shown net of the accumulated amortisation provisions, as illustrated in the table below (Euro thousands).

The table illustrates the comparison between the balances in Intangible assets with definite life of the Avio Group at June 30, 2019 with December 31, 2018.

	30/06/2019			31/12/2018		
	Gross value	Accumulated amortisation	Net book value	Gross values	Accumulated amortisation	Net book value
Development costs - amortisable	71,188	(50,799)	20,389	71,188	(48,692)	22,496
Development costs - in progress	58,167	-	58,167	52,989	-	52,989
Total development costs	129,355	(50,799)	78,556	124,177	(48,692)	75,485
Assets from PPA 2017 - Programmes	44,785	(6,718)	38,067	44,785	(5,225)	39,560
Concessions, licenses, trademarks & similar rights	6,430	(6,029)	401	6,356	(5,849)	507
Other	3,095	(1,940)	1,155	3,065	(1,699)	1,365
Assets in progress and advances	134	-	134	37	-	37
<b>Total</b>	<b>183,799</b>	<b>(65,486)</b>	<b>118,313</b>	<b>178,419</b>	<b>(61,465)</b>	<b>116,954</b>

The amortisable development costs mainly refer to design and testing costs relating to the P80 motor, while the largest part of the development costs in progress relate principally to the projects for the new Z40, P120 and liquid oxygen and methane engines.

The amortisation of these costs begins from the commencement of the commercial production of each individual programme, on a straight-line basis over their useful life, initially estimated based on the duration of the programmes to which they refer.

With reference to development costs in course of completion, which are not subject to amortisation as referring to programmes which have not yet commenced commercial production, recognition under intangible assets with definite useful lives (with prior verification of the absence of impairment) is supported by the profitability forecasts of the programmes.

Following the purchase price allocation process of the Avio Group by Space2 in March 2017, two intangible assets were identified relating to the Ariane and Vega aerospace programmes for a total of Euro 44,785 thousand.

The assets deriving from this allocation were measured at fair value based on the present value of the expected future benefits of the above aerospace programmes and amortised over a period of 15 years on the basis of the average useful life of the programmes.

Concessions, licenses, trademarks, patents and similar rights mainly include costs for the acquisition of licenses, also for software use, and costs related to trademarks.

The changes between December 31, 2018 and June 30, 2019 in the gross values of Intangible assets with definite life of the Avio Group are illustrated in the table below (Euro thousands):

Gross value	31/12/2018	Increases	Decreases	Reclassifications	
				and other changes	30/06/2019
Development costs - amortisable	71,188	-	-	-	71,188
Development costs - in progress	52,989	5,178	-	-	58,167
<b>Total development costs</b>	<b>124,177</b>	<b>5,178</b>	<b>-</b>	<b>-</b>	<b>129,355</b>
Assets from PPA 2017 - Programmes	44,785	-	-	-	44,785
Concessions, licenses, trademarks & similar rights	6,356	74	-	-	6,430
Other	3,065	31	-	-	3,095
Assets in progress and advances	37	97	-	-	134
<b>Total</b>	<b>178,419</b>	<b>5,380</b>	<b>-</b>	<b>-</b>	<b>183,799</b>

The increases in the period with reference to the development costs mainly relate to design and testing costs for the construction of the mini-launchers and the new liquid oxygen and methane engines.

Between December 31, 2018 and June 30, 2019, the changes to accumulated depreciation were as follows (in Euro thousands):

Accumulated amortisation	31/12/2018	Increases	Decreases	Reclassifications	
				and other changes	30/06/2019
Development costs - amortisable	(48,692)	(2,107)	-	-	(50,799)
Development costs - in progress	-	-	-	-	-
<b>Total development costs</b>	<b>(48,692)</b>	<b>(2,107)</b>	<b>-</b>	<b>-</b>	<b>(50,799)</b>
Assets from PPA 2017 - Programmes	(5,225)	(1,493)	-	-	(6,718)
Concessions, licenses, trademarks & similar rights	(5,849)	(180)	-	-	(6,029)
Other	(1,699)	(241)	-	-	(1,940)
<b>Total</b>	<b>(61,465)</b>	<b>(4,021)</b>	<b>-</b>	<b>-</b>	<b>(65,486)</b>

### 3.6. INVESTMENTS

The investments held by the Avio Group at June 30, 2019 and December 31, 2018 follows (in Euro thousands).

	30/06/2019		31/12/2018		Change
	Group share	Total	Group share	Total	
<u>Subsidiaries</u>					
- Servizi Colleferro – Consortium	52.00%	62	52.00%	62	-
<b>Total non-consolidated subsidiaries</b>		<b>62</b>		<b>62</b>	<b>-</b>
<u>Companies under joint control</u>					
- Europropulsion S.A.	50.00%	1,652	50.00%	3,911	(2,259)
<b>Total companies under joint control</b>		<b>1,652</b>		<b>3,911</b>	<b>(2,259)</b>
<u>Associates</u>					
- Termica Colleferro S.p.A.	40.00%	3,636	40.00%	3,636	-
- Other consortiums		5		5	-
<b>Total associates</b>		<b>3,641</b>		<b>3,641</b>	<b>-</b>
<u>Other companies</u>					
- Other companies		524		524	-
<b>Total other companies</b>		<b>524</b>		<b>524</b>	<b>-</b>
<b>Total</b>		<b>5,879</b>		<b>8,138</b>	<b>(2,259)</b>

The changes between December 31, 2018 and June 30, 2019 in the investments are shown below (Euro thousands):

	31/12/2018	Increases	Decreases	Other changes	30/06/2019
Subsidiaries	62	-	-	-	62
Companies under joint control	3,911	981	(3,240)	-	1,652
Associated companies	3,641	-	-	-	3,641
Other companies	524	-	-	-	524
<b>Total</b>	<b>8,138</b>	<b>981</b>	<b>(3,240)</b>	<b>-</b>	<b>5,879</b>

The net decrease in the period of Euro 2,259 thousand relates to the change in the investment in the jointly controlled company Europropulsion S.A., measured at equity, due to an increase of Euro 981 thousand, equal to 50% of the period net profit of the joint venture, which more than offset the Euro 3,240 thousand decrease, equal to 50% of the decrease in Shareholders' equity in the company following the dividends issued in the period.

The investments in other associated companies (mainly consortiums) are valued at acquisition or subscription cost, as these companies are not considered significant in relation to the Group financial position and also as non-operating companies. In addition, the valuation as per the equity method would not result in a significant effect compared to valuation at cost.

There are no significant restrictions in the capacity of the associated companies to transfer funds to the owners of the company, through payment of dividends, loans or advance repayments.

The investments in other companies are valued at cost.

### 3.7. NON-CURRENT FINANCIAL ASSETS

The table below illustrates the non-current financial assets of the Avio Group at June 30, 2019 and at December 31, 2018 (in Euro thousands).

	30/06/2019	31/12/2018	Change
Shareholder loan to Termica Colleferro S.p.A.	6,032	5,812	220
	<b>6,032</b>	<b>5,812</b>	<b>220</b>

The account, amounting to Euro 6,032 thousand (Euro 7,440 thousand at nominal values), comprises the shareholder loan granted to the associated company Termica Colleferro S.p.A. together with the other shareholder SECI Energia S.p.A., paid in order to ensure the long-term operational viability of this company in proportion to the share capital held; a similar contribution was made by the above-mentioned majority shareholder. This shareholder loan is non-interest bearing and subordinate to the bank loan of the associate.

The increase in the period is due to measurement at amortised cost.

### 3.8. DEFERRED TAX ASSETS

The deferred tax assets of the Avio Group recorded in the accounts amount to Euro 76,529 thousand.

The amount recorded in the accounts represents the net balance of the deferred tax assets and liabilities calculated on the temporary differences between the value of assets and liabilities assumed for the purposes of the preparation of the financial statements and the respective values for fiscal purposes and the tax losses carried forward.

Deferred taxes are determined applying the tax rates which are expected to be applied in the period when the temporary differences will be reversed, or the benefits related to the tax losses will be utilised.

The summary of the temporary differences (deductible and assessable) and of the tax losses which resulted in the recognition of deferred tax assets and liabilities is illustrated in the table below with reference to the reporting date (Euro thousands):

	30/06/2019
<b>Gross deferred tax assets on temporary differences</b>	
<i>Temporary differences deriving from previous corporate operations</i>	
Fiscal amortisation on previous goodwill whose tax benefits remain in the Group.	19,262
Financial charges exceeding 30% of EBITDA	43,482
<i>Temporary differences deriving from current corporate operations</i>	
Provision for personnel charges, former employees and similar	1,940
Other deductible temporary differences	8,541
<b>Total gross deferred tax assets</b>	<b>73,224</b>
<b>Deferred tax liability on temporary differences</b>	
<i>Temporary differences deriving from previous corporate operations</i>	
Amortisation intangible assets from PPA 2017 - Customer accreditation	(11,000)
Tax effect R&D expenses First-Time Adoption	(3,627)
<i>Temporary differences deriving from current corporate operations</i>	
Other temporary assessable differences	(1,189)
<b>Total gross deferred tax liabilities</b>	<b>(15,817)</b>
<b>Net deferred tax assets/(liabilities)</b>	<b>57,407</b>
<b>Deferred tax assets on tax losses <sup>(5)</sup></b>	<b>68,657</b>
<b>Deferred tax assets not recorded</b>	<b>(49,535)</b>
<b>Net deferred tax assets (liabilities) recorded</b>	<b>76,529</b>

<sup>5</sup> Calculated at 24% of the total value of tax losses at that date.

Deferred tax assets on temporary differences and on tax losses were recorded in the accounts for the amounts whose future recovery was considered probable, on the basis of forecast assessable income, as well as based on a projection of these forecasts over a subsequent time horizon considered representative of the life cycle of the business equal to 15 years.

This time period considered representative of the life cycle of the business was estimated also taking into account the meeting with the Ministers of the Member Countries of ESA held in December 2014, which resulted in the signing in August 2015 of agreements with ESA relating to the development of the new Ariane 6 launcher and the evolution of the VEGA launcher within the VEGA C programme which provides for the development and construction of the new “P120” motor, and the meeting of the Ministers of the Member Countries of ESA held on December 1, 2016 and on December 2, 2016 which confirmed the above-mentioned development programmes and gave the go ahead for the long-term development programme of the motor and of the Upper Stage of the Vega E, or rather the next step in the evolution of the Vega launcher.

Deferred tax assets recognised to the financial statements mainly concern the future tax deductibility of the goodwill amortisation relating to the “Aviation” business unit (sold in 2013), the financial charges exceeding 30% of gross operating profit and the intangible assets for client accreditation redefined as part of the purchase price allocation of 2017, as commented upon previously, in addition to prior tax losses.

### 3.9. OTHER NON-CURRENT ASSETS

The table below illustrates other non-current assets at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Other non-current assets	78,377	66,521	11,856
	<b>78,377</b>	<b>66,521</b>	<b>11,856</b>

The breakdown of the account at the reporting date was as follows (Euro thousands):

	30/06/2019	31/12/2018	Change
Receivables from the General Electric Group	58,514	58,542	(28)
Receivables from FCA Partecipazioni	13,427	-	13,427
Receivables from the Economic Development Ministry for disbursements pursuant to Law 808/85 - non-current portion	5,809	7,357	(1,548)
Guarantee deposits	483	479	3
Other non-current receivables	145	142	2
<b>Total</b>	<b>78,377</b>	<b>66,521</b>	<b>11,856</b>

“Receivables from the General Electric Group” of Euro 58,514 thousand refer to the recharge of the following tax charges:

- Euro 58,220 thousand relates to the payment notice received in July 2016 from the Tax Agency relating to registration, mortgage and land tax for the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the AeroEngine sector of the Avio Group) to the General Electric Group. This receivable is recognized against an amount payable to the Treasury of like amount among non-current liabilities;
- Euro 294 thousand of charges relating to the tax dispute pertaining to tax year 2013, which was settled in 2018.

The recognition of the above-mentioned receivable from the General Electric Group is based on specific contractual clauses in which this latter must indemnify Avio with reference to any liabilities which should arise in relation to either indirect taxes concerning the above-mentioned extraordinary operations in 2013 or in general to the sector of the above-mentioned sale, providing Avio the sums requested by the Tax Office within the time period for the payments.

Regarding the dispute regarding the registration, mortgage and land taxes, in 2018 an appeal was made before the Piedmont Regional Tax Commission, which in judgment 1740/18 rendered on October 24, 2018 and filed on November 7, 2018 granted the Company's appeal in full. At the reporting date, there was no record of any appeal by the Italian Tax Office of the above judgment before the Court of Cassation.

It bears remarking that lawmakers have addressed the subject-matter of this dispute, which has to do with the application of Art. 20 of Italian Presidential Decree 131/1986 (the “Consolidated Law on Registration Tax”), in paragraph 1084 of Law 145 of December 30, 2018 (the “2019 Finance Act”), expressly granting the force of an official interpretation – and thus retroactive effect – to Art. 1, paragraph 87, letter a) of Law 205 of December 27, 2017 (the “2018 Finance Act”), which amended Art. 20 of the Consolidated Law on Registration Tax, limiting the discretion of the revenue authorities in reclassifying deeds subject to registration. In the light of the provision of the 2019 Finance Act, the provision introduced by the 2018 Finance Act should therefore also apply retroactively, for the benefit of the taxpayer, with the result that there is no longer any case to answer.

For further information, reference should be made to Note “3.23. Other non-current liabilities” and to the section “Legal and tax disputes and contingent liabilities” in the Explanatory Notes.

“Receivables from FCA Partecipazioni” concern the settlement, commented upon in paragraph “10. Subsequent events”.

On August 2, 2019, the Avio Group and FCA Partecipazioni S.p.A. reached a settlement concerning environmental charges, according to which FCA Partecipazioni S.p.A. committed to recognise to the Avio Group a total amount of Euro 19.9 million, of which Euro 11.3 million for reclamation activities and environmental restoration to be paid in the 2019-2023 period and Euro 8.6 million for post-operative management and maintenance to be paid in the 2019-2048 period, against the lapsing of the contractual guarantees which the company provided in the past to the Avio Group. This agreement therefore resulted in the recognition of a discounted receivable from FCA Partecipazioni S.p.A. of Euro 16.5 million, of which Euro 3 million to be collected by June 30, 2020 and recognised to current assets and Euro 13.5 million to be collected beyond 2020, recognised to non-current assets.

This resulted in an increase in other current and non-current assets of Euro 16.5 million and correspondingly of the charges provision of Euro 16.9 million.

On signing the agreement on August 2, 2019, the Avio Group collected, according to the settlement agreement, Euro 4.1 million (of which Euro 3 million against the above new receivable recognised and Euro 1.1 million against the receivable already recognised to the financial statements from FCA Partecipazioni S.p.A.).

In this regard, reference should be made to the more detailed section “Legal and tax disputes and contingent liabilities” in the Explanatory Notes.

“Receivables from the Economic Development Ministry for disbursements pursuant to Law 808/85 - non-current portion”, amounting to Euro 5,809 thousand, refer to the discounted value of the non-current portion of the concessions granted by the Ministry for Economic Development under the rules of Law 808/85.

These receivables are recorded in the accounts at the value resulting from the application of the amortised cost method, calculated utilising the effective interest rate, and are increased due to the effect of the accumulated amortisation of the difference between the initial value and the actual cash amounts and booked in the accounts under “Financial income”.

The amounts to be received within 12 months are classified under “Other current assets” (Note 3.15).

## **CURRENT ASSETS**

### **3.10. INVENTORIES AND ADVANCES TO SUPPLIERS**

The table below illustrates inventories at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Inventories	136,065	116,080	19,985
	<b>136,065</b>	<b>116,080</b>	<b>19,985</b>

The breakdown of the account at June 30, 2019 is presented below (Euro thousands):

	31/12/2018	Change	Other changes	30/06/2019
Raw material, ancillaries and consumables	35,844	5,290	-	41,134
Raw material, ancillary and consumables obsolescence provision	(4,361)	1,828	-	(2,533)
Raw material, ancillary and consumables - net value	31,483	7,118	-	38,602
Products in work-in-progress	5,382	(430)	-	4,952
Provision for the write-down of work in progress	(424)	-	-	(424)
Products in work-in-progress - net value	4,957	(430)	-	4,527
Finished products and other inventories	7	-	-	7
Finished products and other inventories obsolescence provision	(4)	-	-	(4)
Finished products and other inventories - net value	3	-	-	3
Advances to suppliers	79,636	13,297	-	92,933
	<b>116,080</b>	<b>19,985</b>	-	<b>136,065</b>

Advances to suppliers concern payments made in advance of the execution of the relative supplies based on conditions established in the purchase contracts.

The increase in inventories relates to expanded production levels. The raw materials obsolescence provision was utilised for the disposal of materials no longer utilisable.

### 3.11. CONTRACT WORK-IN-PROGRESS

Production and research and development on orders are presented in the financial statements in two separate accounts: “Contract work-in-progress” and “Advances from clients for contract work-in-progress”.

“Contract work-in-progress”, recognised to the assets section of the Balance Sheet, includes the net balance of production orders and research and development for which, on the basis of analysis carried out by individual order, the gross value of contract work-in-progress is higher at the reporting date than the amount of advances received from clients.

“Advances from clients for contract work-in-progress”, recognised to the liabilities section of the Balance Sheet, includes the net balance of production orders and research and development for which, on the basis of analysis carried out by individual order, the value of the advances received from clients is higher at the reporting date than the gross value of contract work-in-progress.

Contract work-in-progress is measured on the advancement of the production orders and research and development in accordance with the percentage of completion method based on the ratio between the costs incurred and the total estimated costs for the entire project.

The gross value of contract work-in-progress and advances received from clients is as follows (in Euro thousands):

	30/06/2019	31/12/2018	Change
Contract work-in-progress	42,402	103,151	(60,749)
Advances for contract work-in-progress	(130,225)	(177,073)	46,847
<b>Net total</b>	<b>(87,823)</b>	<b>(73,921)</b>	<b>(13,902)</b>

The following table outlines advances from clients for contracts work-in-progress concerning production orders and research and development whose gross value is higher than advances received from clients and, therefore, the net balance is recognised to assets in the Consolidated Balance Sheet (in Euro thousands):

	30/06/2019	31/12/2018	Change
Contract work-in-progress (gross)	876,534	503,157	373,377
Advances for contract work-in-progress (gross)	(834,131)	(400,006)	(434,126)
<b>Contract work-in-progress (net)</b>	<b>42,402</b>	<b>103,151</b>	<b>(60,749)</b>

The following table outlines the situation of advances from clients for contracts work-in-progress concerning production orders and research and development for which the value of advances received from clients is higher than the gross value of contract work-in-progress and, therefore, the net balance is recognised to the liabilities section of the Balance Sheet (in Euro thousands).

	30/06/2019	31/12/2018	Change
Contract work-in-progress (gross)	965,005	1,150,960	(185,955)
Advances for contract work-in-progress (gross)	(1,095,230)	(1,328,032)	232,802
<b>Advances for contract work-in-progress (net)</b>	<b>(130,225)</b>	<b>(177,072)</b>	<b>46,847</b>

The Avio Group has matured benefits for research and development tax credits under Law No. 232 of December 11, 2016 "2017 Finance Act" against research and development commissioned by the European Space Agency. These benefits are recognised to the income statement based on the advancement of the research and development on long-term orders which are part of the contract work-in-progress.

The multi-year projects mainly concern those relating to the Vega C and Vega E future generation launchers and the recognition of the economic benefits shall be made over the duration of the orders at issue and from the effective advancement of the orders, calculated on the basis of the relative costs incurred.

### 3.12. TRADE RECEIVABLES

The table below illustrates trade receivables at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Trade receivables	3,495	7,017	(3,522)
	<b>3,495</b>	<b>7,017</b>	<b>(3,522)</b>

The breakdown of trade receivables at the reporting date is shown below (Euro thousands):

	30/06/2019	31/12/2018	Change
Receivables from third parties	1,640	5,479	(3,839)
Receivables from associates and jointly controlled companies	1,242	939	303
	<b>2,882</b>	<b>6,418</b>	<b>(3,536)</b>
Receivables from associates and jointly controlled companies beyond one year	613	599	14
	613	599	14
<b>Total</b>	<b>3,495</b>	<b>7,017</b>	<b>(3,522)</b>

The nominal value of receivables from third parties was adjusted by a doubtful debt provision of Euro 483 thousand in order to reflect their fair value.

### Receivables from third parties

The breakdown of the account is shown below (Euro thousands):

	30/06/2019	31/12/2018	Change
Gross value	2,123	5,962	(3,839)
less: doubtful debt provision	(483)	(483)	0
<b>Total</b>	<b>1,640</b>	<b>5,479</b>	<b>(3,839)</b>

The principal receivables are due from ArianeGroup and the European Space Agency (ESA).

### Receivables from associates, jointly controlled companies and non-consolidated subsidiaries

The breakdown of the account is shown below (Euro thousands):

	30/06/2019	31/12/2018	Change
Europropulsion S.A.	515	524	(9)
Servizi Colleferro S.C.p.A.	370	151	219
Potable Water Services Consortium	214	159	55
Termica Colleferro S.p.A. due within one year	143	105	38
	1,242	939	303
Termica Colleferro S.p.A. due beyond one year	613	599	14
	613	599	14
<b>Total</b>	<b>1,855</b>	<b>1,538</b>	<b>317</b>

### 3.13. CASH AND CASH EQUIVALENTS

The table below illustrates cash and cash equivalents at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Cash and cash equivalents	93,833	108,435	(14,602)
<b>Total</b>	<b>93,833</b>	<b>108,435</b>	<b>(14,602)</b>

Cash and cash equivalents mainly concerning balances on bank current accounts.

Reference should be made to the Cash flow statement with regards to the movements in the period.

### 3.14. CURRENT TAX RECEIVABLES

The table below illustrates tax receivables at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Current tax receivables	64,126	62,775	1,351
<b>Total</b>	<b>64,126</b>	<b>62,775</b>	<b>1,351</b>

The increase between December 31, 2018 and June 30, 2019 was Euro 1,351 thousand; the two main components of this movement are outlined in the following table (in Euro thousands):

	30/06/2019	31/12/2018	Change
VAT receivables	49,410	46,253	3,157
Research and development tax credit (year 2018)	8,584	10,604	(2,020)
Research and development tax credit (year 2017)	-	2,101	(2,101)
Receivables from tax authorities	5,861	3,577	2,284
EU VAT receivables	272	240	31
<b>Total</b>	<b>64,126</b>	<b>62,775</b>	<b>1,351</b>

#### *VAT receivables*

VAT receivables, for Euro 49,410 thousand, include:

- Euro 45,578 thousand, relating to VAT reimbursement requests to the Tax Authorities;
- Euro 3,832 thousand relating to VAT receivables not requested for repayment.

The VAT receivable in the period increased by Euro 3,157 thousand. This increase essentially relates to the parent company Avio S.p.A.

The maturation of the VAT receivable by Avio relates to the fact that the Group's main clients are the European Space Agency (ESA) for the development of launchers and Ariane Group for their production/distribution, in addition to the jointly-controlled company Europropulsion for both of these phases. In particular, the VAT exemptions for intra-Community exports, transactions similar to exports and sales of goods apply to the transactions undertaken with the parties in question. This circumstance entails the quasi-absence of VAT payables on the sales transactions undertaken by the parent company Avio. On the other hand, this latter mainly has Italian suppliers which involves the recognition of VAT receivables.

Despite this, the "VAT receivables" account did not increase significantly - as has been the case in the past - although, as stated, the Group, whose sales are almost entirely from overseas, potentially matures a VAT receivable from third party purchases significantly exceeding the VAT payable deriving from these sales. In particular, the reduction in new VAT receivables relates to the fact that from 2017, as a result of the appeal presented to the Tax Agency, the parent company Avio S.p.A. has been able to apply the regular exporters regime also to transactions

carried out with the subsidiary formerly known as ELV (now Spacelab) and with the ESA as the client, permitting use therefore of the ceiling <sup>(6)</sup> which allows for a significant reduction in the VAT receivable. The situation has been entirely consolidated following the acquisition of the ex-ELV (now Spacelab) business unit by the parent company Avio S.p.A.

The increase in the VAT receivable in the period mainly concerns transactions for which by law it is not possible to apply the “ceiling”.

As reported in the paragraph “Subsequent events” of the Directors Report, following period-end VAT receivables of the parent company Avio S.p.A. were received from the Tax Agency, amounting to Euro 28.0 million, plus interest matured relating to Q2 and Q3 2017 and the 2017 annual VAT.

#### *Research and development tax credit*

#### *Regulatory framework*

Article 3 of Legislative Decree No. 145 of December 23, 2013, converted with amendments, by law No. 9 of February 21, 2014, establishes a tax credit for businesses resident in Italy investing in research and development. In particular, the tax receivable in question:

- concerns investment in fundamental research, industrial research and experimental development;
- is recognised against the investment specifically identified by the law (personnel costs, depreciation on laboratory instruments and equipment, research contract expenses (“extra-muros”) and patent and industrial property expenses) made in the years between 2015 and 2020;
- equates to, for each of the tax break periods, the excess of investments made in the year over average similar investments over the 2012-2014 three-year period (“historic benchmark average”).
- is equal to 50% of the excess costs incurred in the year over the historic benchmark average (until the amendments applied by the 2019 Finance Act, as set out below);
- is utilizable for an annual maximum amount of Euro 20 million (until the amendments applied by the 2019 Finance Act, as set out below);
- may be accessed also where research and development is contracted to third parties. In this case, the break may be utilised by the commissioner, if resident in Italy;

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<sup>6</sup> VAT regime for regular exporters, which permits the requesting of suppliers to not apply VAT on assessable transactions made within the State, for an amount equal to the export sales and similar transactions carried out in the previous year.

- is automatically accessible, without the need for a request for concession or administrative authorisation;
- is utilizable exclusively as an offset from the subsequent tax period to that in which the qualifying costs are incurred (until the amendments applied by the 2019 Finance Act, as set out below).

Due to the changes introduced by Law No. 232 of December 11, 2016 (“2017 Financial Statements Law”), from the 2017 tax year, the tax credit was, among other issues, extended also to costs incurred for research and development carried out by resident companies, as agents, on behalf of overseas commissioners. In particular, the 2017 Finance Act introduced paragraph 1-*bis* to Art. 3 of Decree-Law 145/2013, which with effect from 2017 provides for a tax credit for a resident entity that performs research and development services commissioned by a non-resident entity.

The 2019 Budget Act (Art. 1, paragraphs 70-72, of Law No. 145 of December 30, 2018) further modified the rules governing R&D tax credits. In particular, among other provisions:

- the maximum amount of the tax credit that may be granted to each company was reduced from Euro 20 million to Euro 10 million. This amendment will enter into effect for years after that in progress at December 31, 2018, i.e. from January 1, 2019 for companies whose tax periods coincide with the calendar year;
- the maximum amount of the tax credit was reduced from 50% to 25%, as limited to the costs of research and development activities not organized internally to the company, incurred in excess of the average amount of such investments undertaken in the three tax periods from 2012 to 2014. However, the 50% rate was confirmed for research and development activities organized internally to the company, i.e. for the personnel costs of employees directly assigned to such activities and, for externally commissioned activities, solely for contracts entered into with universities, research entities and organizations and innovative, independent start-ups and small and medium enterprises (SMEs). This amendment will enter into effect for years after that in progress at December 31, 2018, i.e. from January 1, 2019 for companies whose tax periods coincide with the calendar year;
- the tax credit may only be used after specific certification of the costs incurred has been issued by the independent auditor of the accounts. This amendment is already applicable to the tax credit accrued on the basis of the costs incurred in 2018.

In addition, paragraph 72 of the 2019 Finance Act includes an official interpretation of the scope of paragraph 1-*bis* of Art. 3 of Decree-Law 145/2013.

#### *Recognition in the Financial Statements*

These receivables are initially recorded in the account “Research and development tax credit” and recognised to the income statement in each period on an accruals basis, according to the differing types of costs supported, in relation to the percentage of completion of the contract work-in-progress giving rise to the costs against which the due receivable was calculated in the accounts “Service costs” and “Change in contract work-in-progress”.

The slightly reduced contribution for the first half of 2019 compared to the first half of 2018 mainly concerns the regulatory changes introduced by the 2019 Budget Law and the subsequent clarifications provided by the tax authorities.

Similarly to the first half of 2018, in the first half of 2019, no portion of the additional potential benefits from the tax credits maturing in 2019 was recognised, in relation to costs incurred in that year.

As established by the 2019 Budget Law, the tax credit maturing in relation to costs incurred in 2018 was utilised as an offset, following the release of the relative “certification” from the appointed auditor, as required by the above-stated regulatory changes. Therefore, the offsetting in the period relates to the portion of the receivable matured in relation to costs incurred in 2017; while the offsetting of the portion of the receivable matured in relation to costs incurred in 2018, began in August 2019, subsequent to the 2019 half-year.

#### *Tax receivables*

Tax receivables of Euro 5,861 thousand concerned:

- receivables relating to the expedited VAT settlement of Secosvim for Euro 1,659 thousand;
- IRAP receivables of Euro 973 thousand;
- receivables for withholding taxes on interest for Euro 931 thousand;
- tax receivables of the Guyanese subsidiary Regulus for Euro 996 thousand;
- other tax receivables of Euro 1,302 thousand.

#### *EU VAT receivables*

The EU VAT receivables relate to inter-EU transactions and amount to Euro 272 thousand.

### 3.15. OTHER CURRENT ASSETS

The table below illustrates other current assets at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Other current assets	13,656	7,608	6,048
<b>Total</b>	<b>13,656</b>	<b>7,608</b>	<b>6,048</b>

The breakdown of the account is shown in the table below (Euro thousands):

	30/06/2019	31/12/2018	Change
Economic Development Ministry for disbursements pursuant to Law 808/85	4,101	2,624	1,476
Receivables from FCA Partecipazioni	4,052	1,020	3,032
Other receivables	2,139	1,694	445
Prepayments and accrued income	1,522	1,130	392
Employee receivables	1,260	1,008	252
Other receivables from non-consolidated subsidiaries			0
- <i>Servizi Colleferro S.C.p.A.</i>	366	126	239
Social security institutions	216	5	212
<b>Total</b>	<b>13,656</b>	<b>7,608</b>	<b>6,048</b>

Receivables from the “Economic Development Ministry for disbursements pursuant to Law 808/85”, amounting to Euro 4,101 thousand, refer to the discounted value of the sums to be disbursed by the Economic Development Ministry for projects qualifying as functional to national security or projects with common European interest, subsequent to the approval by the Interministerial Committee for the Economic Programming of Resolution No. 28 of March 22, 2006 enacting directives for the aerospace sector, which will be received in the next year.

The portion which will be received beyond 12 months is classified in the account “Other non-current assets” (Note 3.9).

Regarding the “Receivables from FCA Partecipazioni”, reference should be made to the comments in paragraph “10. Subsequent events” and in paragraph “3.9. Other non-current assets” of these notes.

Other receivables, amounting to Euro 2,139 thousand, mainly concern grants and recharges to third parties for environmental and fiscal charges incurred by the Group.

## **EQUITY**

### **3.16. SHARE CAPITAL**

The share capital of the parent company Avio S.p.A. amounts to Euro 90,964,212 at June 30, 2019; the share capital is entirely subscribed and paid-in.

This share capital derives from the aggregation:

- of Euro 15,422,500, equal to the share capital of the SPAC (Special Purpose Acquisition Company) Space2 S.p.A., following the partial proportional spin-off effective as of April 5, 2017, with the beneficiary being the new SPAC Space3 S.p.A. (this latter company therefore not part of the Avio Group). The company Space2, following the acquisition of the Avio Group on March 31, 2017, then merged by incorporation the parent Avio S.p.A., effective as of April 10, 2017, and was newly renamed "Avio S.p.A.";
- of Euro 75,339,170, equal to the share capital increase to service the share swap of the above-mentioned merger, following which shares were assigned of the incorporating company Space2 to Leonardo S.p.A. and In Orbit S.p.A.
- of which Euro 202,542 thousand as the increase due to the exercise, in the second half of 2017, of market warrants (see the "Shareholders" paragraph of the Directors' Report).

The share capital at June 30, 2019 comprised 26,359,346 ordinary shares.

### **3.17. SHARE PREMIUM RESERVE**

The share premium reserve at June 30, 2019 was Euro 144,255,918, unchanged on December 31, 2018.

### **3.18. OTHER RESERVES**

The breakdown of other reserves is as follows (Euro thousands):

	30/06/2019	31/12/2018	Change
Actuarial gains/(losses) reserve	(4,043)	(3,612)	(430)
Legal reserve	18,193	18,193	-
<b>Total</b>	<b>14,150</b>	<b>14,580</b>	<b>(430)</b>

Other reserves comprise:

- a negative reserve of Euro 4,043 thousand regarding losses net of actuarial gains from the application of IAS 19 revised, with the relative tax effect where applicable;
- the legal reserve for a positive Euro 18,193 thousand.

### **3.19. NON-CONTROLLING INTERESTS**

Non-controlling interests relate to the share of the equity in Spacelab S.p.A and Regulus S.A consolidated under the line-by-line method, as illustrated below (in Euro thousands):

Consolidated companies	30/06/2019			
	% Non-controlling interests	Capital and reserves	Profit/(loss)	Equity non-controlling Interests
Spacelab S.p.A.	30.00%	2,477	2	2,479
Regulus S.A.	40.00%	4,488	274	4,762
		<b>6,965</b>	<b>276</b>	<b>7,241</b>

## **NON-CURRENT LIABILITIES**

### **3.20. NON-CURRENT FINANCIAL LIABILITIES**

The movement in the account between December 31, 2018 and June 30, 2019 is reported below (in Euro thousands):

	30/06/2019	31/12/2018	Change
Non-current financial liabilities	55,421	40,000	15,421
<b>Total</b>	<b>55,421</b>	<b>40,000</b>	<b>15,421</b>

The increase is outlined in the following table (in Euro thousands):

	30/06/2019	31/12/2018	Change
Financial liabilities to EIB	50,000	40,000	10,000
Financial liabilities to associates as per IFRS 16	1,386	-	1,386
Financial liabilities to third party companies as per IFRS 16	4,036	-	4,036
<b>Total</b>	<b>55,421</b>	<b>40,000</b>	<b>15,421</b>

On January 16, 2019 the Company signed an additional Euro 10 million loan contract with the European Investment Bank (EIB). This loan is in fact in addition to, and subject to similar economic conditions as, the aforementioned original loan of Euro 40 million contracted in October 2017.

This increase will further support the planned development of new technologies in the field of space propulsion systems in view of the offering of the new products for the Ariane 6 and Vega 6 programs and the expansion of industrial capacity at the Colleferro facility required to meet the Company's production volume targets for the coming years.

The two loans with the EIB have the following characteristics:

- loan of Euro 10 million signed in January 2019: this loan has a fixed interest rate and is of 7-years duration, of which 2 constituting a grace period and repayment in ten equal half-yearly instalments from the third to the seventh years, of which the first maturing on April 30, 2021 and the final maturing on October 31, 2025;
- loan of Euro 40 million signed in October 2017: this loan has a fixed interest rate and is of 7-years duration, of which 2 constituting a grace period and repayment in ten equal half-yearly instalments from the third to the seventh years, of which the first maturing on April 30, 2020 and the final maturing on October 31, 2024.

These two loans are not supported by guarantees and stipulate the application of covenants (Gross Financial Debt/EBITDA, Gross Financial Debt/Equity, EBITDA/net financial charges), among other covenants. To-date, these covenants have been complied with.

Hedging derivatives have not been agreed on these loans.

Financial liabilities recognised in the period following application of IFRS 16 concern:

- with regards to the financial liabilities to associates, the lease of the electro-duct and relative electrical infrastructure at the combined cycle co-generation thermo-electrical station owned by the associate Termica Colleferro S.p.A.;
- with regards to the financial liabilities to third parties, these essentially concern:
  - the leasing of office and industrial use land and buildings at Airola (Campania) and Villaputzu (Sardinia);
  - the lease of apartments for employees in Guyana;
  - the lease of company cars.

### **3.21. EMPLOYEE BENEFIT PROVISIONS**

The account relates to post-employment benefits and other long-term benefits.

The means for accruing these benefits varies according to the legal, fiscal and economic conditions of each State in which the Group operates. These benefits are generally based on remuneration and years of employee service. The obligations refer to employees in service.

#### **Post-employment benefits**

Group companies guarantee post-employment benefits for employees both through contributions to external funds and through defined benefit plans.

#### *Defined contribution plans*

In the case of defined contribution plans, the Group pays the contributions to public or private insurance institutions based on legal or contractual obligations. With the payment of contributions, the companies fulfil their obligations. The payables for contributions to be paid at the reporting date are included in the account "Other current liabilities"

and the cost for the period matures based on the service period of the employee and recorded in the income statement account "Personnel expenses".

#### *Defined benefit plans*

Defined benefit plans are represented by unfunded plans, principally provided by third party funds, present in the Italian companies of the Group, of the leaving indemnity provision and of the special loyalty bonus indemnity, payable on departure to the employees which have matured the required number of years' service. The value of the liabilities recorded in the accounts for these institutions is calculated on an actuarial basis, utilising the projected unit credit method.

The leaving indemnity provision relates to the obligation for the amount to be paid to employees on the termination of employment, pursuant to the provisions of Article 2120 of the Civil Code. The regulations of this provision were modified by the 2007 Finance Act and subsequent Decrees and Regulations. Specifically, for the companies with an average number of employees not lower than fifty, the portion of leaving indemnity matured subsequent to January 1, 2007 is, on the choice of the employee, either transferred to a complementary pension fund or to the INPS treasury fund. Consequently, for the companies of the Group with a number of employees not below fifty, the portion of the employee leaving indemnity matured subsequent to this date is treated as a defined contribution plan, as the obligation of the Group is represented exclusively by the payment to the complimentary pension fund or to INPS, while the liability existing at December 31, 2006 continues to be treated as a defined benefit plan to be valued in accordance with actuarial methods. For the companies of the Group with a number of employees below fifty, the portion matured in the year continues to be accrued to the company leaving indemnity provision, unless specific choices are made voluntary by the individual employees.

#### **Other long-term employee benefits**

The Group also recognises to employees other long-term benefits issued on the reaching of a fixed number of years of service. In this instance, the value of the obligation recognised to the financial statements reflects the probability that the payment will be issued and the duration for which payment will be made. The value of these liabilities recorded in the accounts are calculated on an actuarial basis, utilising the "projected unit credit" method. The Group mainly has "unfunded" defined benefit plans, principally comprising the leaving indemnity provision of the Italian companies.

The provisions are broken down as follows (in Euro thousands):

	30/06/2019	31/12/2018	Change
- Defined benefit plans:			
Post-employment benefits	5,022	5,006	16
Other defined benefit plans	2,678	2,478	200
	<b>7,700</b>	<b>7,484</b>	<b>216</b>
- Other long-term benefits	3,528	3,222	306
<b>Total employee benefit provisions</b>	<b>11,228</b>	<b>10,706</b>	<b>522</b>
<i>of which:</i>			
- Italy	9,568	9,254	314
- Other Countries	1,660	1,452	208
	<b>11,228</b>	<b>10,706</b>	<b>522</b>

The following table presents the principal changes in the employee benefit provisions (in Euro thousands):

	Defined benefit plans	Other long-term benefits	Total employee benefit provisions
<b>At 31/12/2018</b>	<b>7,484</b>	<b>3,222</b>	<b>10,706</b>
Financial charges/(income)	(1)	(0)	(1)
Extraordinary charges/(income) from actuarial adjustment	(1)	0	(1)
Actuarial (gains)/losses in income statement		112	112
Actuarial (gains)/losses in comprehensive income statement	505		505
Pension cost current employees	53	262	315
Benefits paid	(340)	(68)	(408)
<b>Values at 30/06/2019</b>	<b>7,700</b>	<b>3,528</b>	<b>11,228</b>

The actuarial loss of Euro 505 thousand in the first half of 2019 is mainly due to the reduction in the discount rate between December 2018 and June 2019, in addition to the residual experience component (actual vs forecast). The reduction in rates relates to the global economic environment: the heightening of trade tensions between China and the United States, particularly in May 2019, alongside the weakening growth outlook and reduced global long-term yields, with these contractions continuing during the month of June.

The table below illustrates the principal assumptions utilised for the actuarial calculation:

	30/06/2019	31/12/2018
Discount rate	0.13%	0.65%
Expected salary increases	2.14%	2.12%
Inflation rate	1.50%	1.50%
Average employee turnover rate	4.61%	4.76%

Securities issued by corporate issuers with “AA” ratings were utilised for the calculation of the present value, with the presumption that this class identifies a high rating level within a range of “Investment Grade” securities and therefore excluding more risky securities. The market curve utilised was a “Composite” curve which reflects the market conditions at the valuation date for securities issued by companies belonging to various sectors (including Utility, Telephone, Financial, Bank and Industrial). In relation to the geographical area, reference was made to the Eurozone.

### 3.22. PROVISIONS FOR RISKS AND CHARGES

The table below illustrates provisions for risks and charges at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Provisions for risks and charges	29,756	15,864	13,892
<b>Total</b>	<b>29,756</b>	<b>15,864</b>	<b>13,892</b>

The breakdown of the provisions for risks and charges at June 30, 2019 is presented below (Euro thousands):

	30/06/2019		
	Current portion	Non-current portion	Total
Provision for variable remuneration	2,783	1,865	4,648
Provision for legal and environmental risks and charges	2,810	19,574	22,384
Provision for contractual and commercial risks and charges	667	2,056	2,723
<b>Total</b>	<b>6,260</b>	<b>23,495</b>	<b>29,756</b>

These provisions include:

- provisions for variable remuneration for Euro 4.6 million, mainly comprising employee remuneration on the achievement of individual and corporate objectives;
- provisions for legal and environmental risks and charges, against litigation and trade union disputes in course, amount to Euro 22.4 million;

- provisions for contractual and commercial risks and charges, mainly related to the provisions to cover potential commercial charges, penalties, charges and losses deriving from the conclusion of contracts in course, in addition to charges for rights pursuant to the provisions of Law 808/85 (regulation post 2006), amount to Euro 2.7 million.

The changes from January 1, 2019 to June 30, 2019 in the total provisions, current and non-current portion, are illustrated in the table below (Euro thousands):

	31/12/2018	Provisions	Other changes	Utilisations	Releases	30/06/2019
Provision for variable remuneration	5,953	2,543		(3,847)		4,648
Provision for legal and environmental risks and charges	5,725	16,857		(197)		22,384
Provision for contractual and commercial risks and charges	4,186	418		(1,450)	(430)	2,723
<b>Total</b>	<b>15,864</b>	<b>19,817</b>	<b>0</b>	<b>(5,495)</b>	<b>(430)</b>	<b>29,756</b>

The principal changes between January 1, 2019 and June 30, 2019 are shown:

- the provision for variable remuneration was utilised for Euro 3.9 million, mainly in consideration of the amounts paid to employees as bonuses related to the achievement of individual and company objectives. The provision of Euro 2.5 million mainly relates to variable remuneration which will be paid at the beginning of 2020, on the basis of the achievement of individual and company objectives for the year 2019, in addition to a long-term incentive plan for senior Group managers;
- the provisions for legal and environmental risks and charges increased by Euro 16.9 thousand. The increase concerned the environmental charges provision (recognised to the financial statements at present values) in relation to the settlement between the Avio Group and FCA Partecipazioni commented upon in the Directors' Report paragraph "10. Subsequent events" and paragraphs "3.9 Other non-current assets" and "3.15 Other current assets" of these notes.

In this regard, reference should be made to the more detailed section "Legal and tax disputes and contingent liabilities" in the Explanatory Notes.

### 3.23. OTHER NON-CURRENT LIABILITIES

The table below illustrates the account at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Non-current liabilities	122,272	122,453	(181)
<b>Total</b>	<b>122,272</b>	<b>122,453</b>	<b>(181)</b>

During the period, the following changes took place:

	30/06/2019	31/12/2018	Change
Payables to the Tax Authorities for registration, mortgage and land tax relating to the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the AeroEngine sector of the Avio Group) to the General Electric Group.	58,220	58,220	-
Payables to the Economic Development Ministry (MiSE) for disbursements pursuant to Law 808/85 (rules pre-2007) - portion beyond one year	42,051	42,051	-
Payables to MiSE for disbursements pursuant to Law 808/85 (rules as per MiSE Decree 3/07/2015) - portion beyond one year	1,274	1,265	9
Deferred income on disbursements pursuant to Law 808/85 (post 2007) - beyond one year	17,304	18,654	(1,349)
Deferred income on disbursements pursuant to Law 808/85 (rules as per MiSE Decree 3/07/2015) - portion beyond one year	483	483	-
Other tax payables	2,175	1,096	1,079
Other payables	170	-	170
Other deferred income	595	684	(90)
<b>Total</b>	<b>122,272</b>	<b>122,453</b>	<b>(181)</b>

**Payables to the Tax Authorities for registration, mortgage and land tax relating to the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the AeroEngine sector of the Avio Group) to the General Electric Group.**

The account, amounting to Euro 58,220 thousand, refers entirely to the settlement notice received in July 2016 from the Tax Agency relating to registration, mortgage and land tax for the above-mentioned amount, relating to the corporate operations which in 2013 resulted in the sale of the company GE Avio S.r.l. (containing the assets of the AeroEngine sector of the Avio Group) to the General Electric Group. Simultaneously a receivable was recorded from the General Electric Group for a similar amount.

The recognition of the above-mentioned receivable from the General Electric Group is based on specific contractual clauses in which this latter must indemnify Avio with reference to any liabilities which should arise in relation to indirect taxes concerning the above-mentioned operations, providing Avio the sums requested by the Tax Office within the time period for the payments.

For further information, reference should be made to Note "3.9. Other non-current liabilities" and to the section "Legal and tax disputes and potential liabilities" in the Explanatory Notes.

**Payables to the Economic Development Ministry for disbursements pursuant to Law 808/85 (rules pre-2007) - portion beyond one year**

This account (Euro 42,051 thousand) comprises the payables to the Economic Development Ministry relating to the disbursements, received pursuant to Law 808/85 and subsequent modifications and supplementations, undertaken for the promotion of research and development activities, including studies, tests and design relating to new programmes and other activities, in the aerospace industry. These sums are non-interest bearing and must be reimbursed in the period in which the revenues are generated from the programmes to which they refer. The payables are recorded at their nominal value.

This payable concerning the grants as per Law 808/85 is subject to the relative provisions valid up to 2006. In 2006 the enacting regulations of Law 808/85 were modified. In particular, a specific regulation was defined for the programmes subject to intervention by Law 808/85 considered as functional to national security or projects of common European interest, which provide for, in place of the restitution of the disbursements granted, the payment of rights relating to the sale of the products developed within the programmes. For the programmes not within the above-mentioned category, the obligation remains for the restitution without payment of interest. It is considered, following detailed analysis undertaken also with the assistance of primary legal firms and as communicated to the Economic Development Ministry in previous years, that this new regulation is not applicable to the interventions undertaken prior to the adoption of Resolution No. 28/2006 of the Interministerial Committee for Economic Programming, in relation to the specific situation of the programmes subject to the interventions, and therefore, as during 2018 there were no mandatory changes to the regulations in force, there were no changes in the criteria utilised to-date in the recognition in the accounts of the disbursements in question.

**Payables to Economic Development Ministry for disbursements pursuant to Law 808/85 (rules as per MiSE Decree 3/07/2015) - portion beyond one year**

Disclosure upon the payable to MiSE for disbursements as per Law 808/85 according to the ex MiSE Decree of 3/07/2015 of Euro 1,274 thousand is presented below.

With Economic Development Ministry Decree of July 3, 2015, the criteria and means for funding to promote and support aerospace research and development projects to consolidate and grow Italian technology and the sector's competitiveness were defined.

The measures under the Decree concern zero-rate subsidised loans granted within the limits established by EU rules upon research, development and innovation.

The loans are repaid for 90% of the settlement amount through annual equal instalments over the issue duration and however for a period of not less than ten years, beginning from the year subsequent to the final disbursement. The remaining 10% is an outright grant.

On February 19, 2018, the parent Avio was recognised the Settlement Decree by the Economic Development Ministry with regards to expenses incurred as part of a research and development project which falls within the scope of the above-mentioned July 3, 2015 Decree.

The final disbursement under the plan reported in the Decree of February 19 is in 2029, with repayment therefore from the subsequent year (2030) until 2045.

Both the grants receivable from the Ministry for Economic Development and the subsequent reimbursements payable to the Ministry have been accounted for at amortized cost.

The difference between the nominal and present values of the amount receivable and payable is recognized over the course of the benefit.

#### **Deferred income on disbursements pursuant to Law 808/85 (post 2007) - beyond one year**

The account, amounting to Euro 17,304 thousand, represents the initial counter-entry of the receivable from the Economic Development Ministry against the grants pursuant to Law 808/85, relating to the projects qualifying as functional to national security or projects with common European interest, for the amount to be allocated to the income statement in future years, beyond one year, in correlation to the allocation of the costs against which the disbursements were granted.

#### **Deferred income on disbursements pursuant to Law 808/85 (rules as per MiSE Decree 3/07/2015) - portion beyond one year**

See above for an account of the rules for grants pursuant to Law 808/85 set out in the Decree of the Ministry for Economic Development of July 3, 2015.

The account, which amounted to Euro 483 thousand, represents the difference between the nominal values and present values of the amount receivable and payable in respect of the aforementioned liquidation decree dated February 19, 2018.

#### **Other tax payables**

This account, which amounted to Euro 2,175 thousand, refers to:

- for Euro 1,079 thousand, the Tax payable of the subsidiary Secosvim concerning the expedited settlement, following the application presented by May 31, 2019, regarding the tax dispute relating to the

alleged failure to apply the tax on the reclamation costs subject to recharge to the consolidating company Avio S.p.A. for the years 2010, 2011 and 2012.

This settlement stipulates the payment of the taxes only, without penalties and interest, for a total amount of Euro 1.6 million.

This amount shall be paid in 20 equal quarterly instalments, the first of which was paid on May 31, 2019.

For further details, reference should be made to paragraph “B.3 Tax dispute relating to non-application of VAT on reclamation costs recharged to Avio in the years 2010, 2011 and 2012” in the “Legal and tax cases and contingent liabilities” section;

- for Euro 876 thousand, the portion beyond 12 months concerning amounts payable in connection with the settlement of a tax dispute relating to tax year 2013 reached with the Italian Tax Office in 2018 and broken down into 12 quarterly instalments;
- for Euro 220 thousand, the remaining instalment, maturing on September 30, 2020, relating to the settlement as per Article 5-bis of Legislative Decree 193/2016 (converted by Law 225 of 2016) agreed by the subsidiary Secosvim with the Customs and Monopolies Agency on September 29, 2017, with regards to the tax dispute concerning electricity sold to the companies of the Colleferro industrial district in the period between 2001 and August 2005;

## **CURRENT LIABILITIES**

### **3.24. CURRENT FINANCIAL LIABILITIES**

The table below illustrates current financial liabilities at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Financial liabilities to Europropulsion	16,749	19,249	(2,500)
Financial liabilities as per IFRS 16	1,172	-	1,172
<b>Total</b>	<b>17,921</b>	<b>19,249</b>	<b>(1,328)</b>

The account at June 30, 2019 comprised:

- the financial payables to the jointly-controlled company Europropulsion, relating to the mechanism of distributing to its shareholders the financial resources available to the joint venture, in accordance with a specific treasury management contract;
- the financial liabilities from application of IFRS 16, as previously outlined.

### 3.25. CURRENT PORTION OF NON-CURRENT FINANCIAL PAYABLES

The table below illustrates this account at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Current portion of non-current financial payables	75	60	15
<b>Total</b>	<b>75</b>	<b>60</b>	<b>15</b>

The current portion of Euro 75 thousand of financial payables refers to accumulated interest on the recent EIB loans. Interest matures bi-annually.

### 3.26. TRADE PAYABLES

The table below illustrates trade payables at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Trade payables	120,120	131,407	(11,287)
<b>Total</b>	<b>120,120</b>	<b>131,407</b>	<b>(11,287)</b>

Trade payables of the Avio Group at June 30, 2019 amount to Euro 120.1 million; this amount includes, for Euro 7.1 million, trade payables to associated companies, jointly-controlled companies and non-consolidated subsidiaries as follows (Euro thousands):

	30/06/2019	31/12/2018	Change
Europropulsion S.A.	6,332	21,190	(14,858)
Termica Colleferro S.p.A.	632	1,962	(1,330)
Potable Water Services Consortium	(85)	(159)	74
<b>Total</b>	<b>6,879</b>	<b>22,993</b>	<b>(16,114)</b>

### 3.27. CURRENT TAX PAYABLES

The table below illustrates current tax liabilities at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Current income tax liabilities	3,344	2,308	1,036
<b>Total</b>	<b>3,344</b>	<b>2,308</b>	<b>1,036</b>

The breakdown of current income taxes is shown below (in Euro thousands):

	30/06/2019	31/12/2018	Change
Payables for withholding taxes	1,249	1,200	48
Other tax payables	1,007	621	385
IRAP payables	839	43	796
Foreign income taxes	249	443	(194)
<b>Total</b>	<b>3,344</b>	<b>2,308</b>	<b>1,036</b>

Payables for withholding taxes refer to employee and consultant withholding taxes.

Other Tax payables of Euro 1,007 thousand comprise the following items:

- Euro 498 thousand, as the Tax payable of the subsidiary Secosvim concerning the expedited settlement, following the application presented by May 31, 2019, regarding the tax dispute relating to the alleged failure to apply the tax on the reclamation costs subject to recharge to the consolidating company Avio S.p.A. for the years 2010, 2011 and 2012.

This settlement stipulates the payment of the taxes only, without penalties and interest, for a total amount of Euro 1.6 million.

This amount shall be paid in 20 equal quarterly instalments, the first of which was paid on May 31, 2019.

For further details, reference should be made to paragraph *“B.3 Tax dispute relating to non-application of VAT on reclamation costs recharged to Avio in the years 2010, 2011 and 2012”* in the “Legal and tax cases and contingent liabilities” section;

- Euro 225 thousand, as the payable for the short-term instalments of settlements of a tax dispute relating to tax year 2013 reached with the Italian Tax Office in 2018;
- Euro 220 thousand, as the short-term payable of the settlement as per Article 5-bis of Legislative Decree 193/2016 (converted by Law 225 of 2016) agreed by the subsidiary Secosvim with the Customs and

Monopolies Agency on September 29, 2017, with regards to the tax dispute concerning electricity sold to the companies of the Colleferro industrial district in the period between 2001 and August 2005.

The IRAP payables increased by Euro 796 thousand, in view of the IRAP tax liabilities from the temporary non-deductibility of the accrual to the environmental risks provision.

Payables for foreign taxes relate to the tax liabilities of the subsidiaries Regulus S.A. and Avio Guyana S.A.S, operating in Kourou in French Guyana, a French overseas region and department in South America.

### 3.28. OTHER CURRENT LIABILITIES

The table below illustrates other current liabilities at June 30, 2019 and December 31, 2018 (Euro thousands).

	30/06/2019	31/12/2018	Change
Other current liabilities	21,936	16,801	5,135
<b>Total</b>	<b>21,936</b>	<b>16,801</b>	<b>5,135</b>

Other current liabilities at June 30, 2019 and December 31, 2018 were as follows (Euro thousands):

	30/06/2019	31/12/2018	Change
Customer advances for the supply of goods and services	2,013	2,013	-
Payables due to social security institutions	3,445	3,775	(330)
Employee payables	8,928	6,448	2,481
Payables to ASI	3,000		3,000
Other payables to third parties	1,026	1,381	(355)
Deferred income on disbursements pursuant to Law 808/85 - current portion	1,350	702	648
Other accrued liabilities and deferred income	2,173	2,482	(308)
<b>Total</b>	<b>21,936</b>	<b>16,801</b>	<b>5,135</b>

#### Customer advances for the supply of goods and services

The account mainly relates to advances received from final customers against supplies for Euro 2,013 thousand.

#### Amounts due to social security institutions

The account concerns amounts to be paid, amounting to Euro 3,445 thousand, relating to company and employee contributions, in accordance with regulations in force.

### **Employee payables**

Employee payables amount to Euro 8,928 thousand and include remuneration to be settled, in addition to vacations and other rights matured and not utilised.

### **Payables to ASI**

The account, amounting to Euro 3,000 thousand, concerns dividends, approved by the Shareholders' Meeting of the subsidiary Spacelab S.p.A. although not yet issued, regarding the ASI, which is a minority shareholder of this latter.

### **Other payables to third parties**

"Other payables to third parties" of Euro 1,026 thousand principally concern payables to third parties of the subsidiary Regulus.

### **Deferred income on disbursements pursuant to Law 808/85 (post 2007) - current portion**

The account concerns the accrual of the contribution, with regards to the portion expected to be recognised as income to the income statement within the next 12 months.

### **Accrued liabilities and deferred income**

This account, amounting to Euro 2,173 thousand, mainly refers to the deferment of commercial costs and grant to the following year.

## **INCOME STATEMENT**

### **3.29. REVENUES**

Total revenues, comprising the change in contract work-in-progress and revenues from product sales and the provision of services, amounted to Euro 190,997 thousand for H1 2019. They amounted Euro 202,005 thousand in the first half of 2018.

The following table compares the two periods (in Euro thousands):

	H1 2019	H1 2018	Change
Revenue from sales	1,455	4,060	(2,605)
Revenues from services	1,914	1,441	473
	3,369	5,500	(2,131)
Change in contract work-in-progress	187,628	196,504	(8,876)
<b>Total</b>	<b>190,997</b>	<b>202,005</b>	<b>(11,008)</b>

The revenues therefore include the effect of the accounting of research and development activities reported below. Research and development tax credits (Law No. 232/2016) are recognised to the financial statements to the extent that the tax credit is considered recoverable and utilisable. These credits are initially recorded in the account “Other current assets” and recognised to the income statement in each period on an accruals basis, according to the differing types of costs supported, in relation to the percentage of completion of the contract work-in-progress giving rise to the costs against which the credit was calculated in the accounts “Service costs” and “Change in contract work in progress”.

For further details on the revenue performance and the relative programmes, reference should be made to the “Operating results” paragraph of the Directors’ Report.

### 3.30. OTHER OPERATING REVENUES

Other operating revenues for the two periods are compared below (in Euro thousands):

	H1 2019	H1 2018	Change
Income from the release of provisions	430	23	407
Income for the portion recognised to the income statement of the disbursements as per Law 808/85	545	558	(13)
Other income	1,240	206	1,034
Over-accruals and similar in prior periods	17	338	(321)
Recovery of costs, damages and other income	369	328	41
<b>Total</b>	<b>2,600</b>	<b>1,452</b>	<b>1,148</b>

In the first half of 2019, the account comprised:

- income from the release of provisions of the subsidiary Regulus for Euro 430 thousand;
- income for the portion recognised to the income statement of the disbursements as per Law 808/85 for Euro 545 thousand;
- other income for Euro 1,240 thousand, mainly comprising grants for Euro 518 thousand and an indemnity from the former shareholder Cinven, with regards to the partial coverage of the charges for a prior tax dispute for Euro 286 thousand;
- recovery of costs, damages and other income for Euro 369 thousand;

Income for the portion recognised to the income statement of disbursements as per Law 808/85 includes the type of costs against which the disbursement was granted and in correlation to the periods in which the related expenses and depreciation were recognised to the income statement.

### 3.31. CONSUMPTION OF RAW MATERIALS

The breakdown of the account is as follows (Euro thousands):

	H1 2019	H1 2018	Change
Purchase of raw materials	67,351	61,187	6,164
Change in inventories of raw materials	(7,118)	3,695	(10,813)
<b>Total</b>	<b>60,233</b>	<b>64,882</b>	<b>(4,650)</b>

### 3.32. SERVICE COSTS

The breakdown of the account is as follows (in Euro thousands):

	H1 2019	H1 2018	Change
Service costs	83,997	95,042	(11,045)
Rent, lease and similar costs	210	1,023	(813)
<b>Total</b>	<b>84,207</b>	<b>96,065</b>	<b>(11,858)</b>

Service costs, amounting to Euro 84,207 thousand, in particular, include costs for activities carried out by co-producers, for consultancy and technical and professional services, for outsourcing, for maintenance and for temporary personnel.

The item “Service costs” includes the amount of the emoluments due to the Avio Group’s governing bodies, relating to:

- directors’ fees of Euro 212 thousand and specific committee fees of Euro 69 thousand;
- supervisory board fees of Euro 86 thousand;
- Board of Statutory Auditors’ fees of Euro 98 thousand;
- auditing firm fees of Euro 73 thousand.

The service costs therefore include the effect of the accounting of receivables for research and development activities as described previously, with regards to the accounting methodology, in paragraph 3.29 “Revenues”.

### 3.33. PERSONNEL EXPENSES

The breakdown of the account is as follows (in Euro thousands):

	H1 2019	H1 2018	Change
Wages and salaries	25,504	22,168	3,336
Social security charges	6,415	6,919	(504)
Provision for variable remuneration	2,385	1,866	519
Other long-term benefits - current employees	270	292	(22)
Actuarial (gains)/losses recorded in P&L relating to other long-term benefits	104	(17)	121
Provision for “Other defined benefit plans”	53	55	(2)
Other personnel expenses	1,503	1,370	133
<b>Total</b>	<b>36,234</b>	<b>32,651</b>	<b>3,582</b>

The table below illustrates, at Group level and divided by category, the average number of employees of the companies included in the consolidation scope:

	H1 2019	H1 2018	Change
Blue-collar	383	330	53
White-collar	497	441	56
Executives	24	25	(1)
<b>Total</b>	<b>904</b>	<b>796</b>	<b>108</b>

### 3.34. AMORTISATION & DEPRECIATION

The breakdown of the account is as follows (in Euro thousands):

	H1 2019	H1 2018	Change
Property, plant & equipment	3,211	2,814	397
Rights of use	755		755
Investment property	31	28	3
Intangible assets with definite life	4,021	3,999	22
<b>Total</b>	<b>8,019</b>	<b>6,841</b>	<b>1,178</b>

This account includes from the present year depreciation on the Rights-of-use, recognised following application of IFRS 16.

Amortization of intangible assets with a definite life primarily includes:

- amortization of capitalized development costs of Euro 2,107 thousand (Euro 2,106 thousand in H1 2018);
- Euro 1,493 thousand for the amortisation of intangible assets regarding the Ariane and Vega programmes, identified following the purchase price allocation process regarding the Group by Space2 in 2017 (same amount in H1 2018).

### 3.35. OTHER OPERATING COSTS

This account amounts to Euro 3,267 thousand (Euro 4,984 thousand in H1 2018) and mainly comprises the following items:

- indirect taxes of Euro 888 thousand (Euro 1,611 thousand in H1 2018);
- other operating costs of Euro 622 thousand, relating also to membership fees and donations (Euro 330 thousand in H1 2018);
- accruals to personnel charge provisions of Euro 450 thousand (Euro 1,276 thousand in H1 2018);
- provisions for rights pursuant to the provisions of Law 808/85 (post 2006), amounting to Euro 224 thousand;

- prior year charges of Euro 208 thousand (Euro 489 thousand in H1 2018).
- FASI fund for executives entry charges for Euro 157 thousand.

The account for the comparative period presented an increased amount with regards to the above listed items, where the comparison is reported, as in the first half of 2018 including accruals to the Contractual and commercial charges provisions of Euro 1,153 thousand.

### **3.36. EFFECT VALUATION OF INVESTMENTS UNDER EQUITY METHOD - OPERATING INCOME/(CHARGES)**

The account includes the effect of the application of the equity method for the valuation of the investment held in the jointly-controlled company Europropulsion S.A. These effects are recorded, in accordance with the option permitted by IFRS 11, under operating income and charges of the Group, based on the operating nature of the investment of the Avio Group in the company. The effect recorded with reference to the first half of 2019, amounting to income of Euro 981 thousand, corresponds to the share of the net result recorded by the investee in the period (in the absence of consolidation adjustments impacting the result of the jointly controlled company).

In the comparative H1 2018 period, the effect of the valuation of investment in the above company was Euro 1,768 thousand.

### **3.37. COSTS CAPITALISED FOR INTERNAL WORKS**

The account relating to costs capitalised for internally constructed assets, amounting to Euro 5,210 thousand (Euro 3,576 thousand in H1 2018), includes the costs for the internal construction of intangible assets, and to a lesser extent, tangible assets, recorded under assets in the Balance Sheet.

The details are as follows:

- internal development costs of Euro 5,178 thousand (Euro 3,357 thousand in H1 2018);
- costs for the internal production of tangible assets for Euro 31 thousand (Euro 220 thousand in H1 2018).

### 3.38. FINANCIAL INCOME

The breakdown of the account is as follows (Euro thousands):

	H1 2019	H1 2018	Change
Bank interest income		8	(8)
Financial income on Savings Bonds		0	0
Discounts and other financial income	263	82	181
	263	90	173
Realised exchange gains	57	495	(438)
Unrealised exchange gains	(29)	5	(33)
	29	500	(471)
<b>Total</b>	<b>292</b>	<b>590</b>	<b>(299)</b>

Financial income of Euro 292 thousand principally concerned:

- interest income from the discounting of receivables for Euro 263 thousand, of which;
  - Euro 220 thousand concerning the financial receivable of the associate Termica Colleferro S.p.A.;
  - Euro 43 thousand concerning the receivables from the Ministry for Economic Development for the disbursements as per Law 808/85;
- exchange differences for Euro 29 thousand.

Realised exchange gains arise on the collection of receivables and settlement of payables in foreign currencies.

Unrealised exchange losses relate to the period-end translation of receivables and payables in foreign currencies.

### 3.39. FINANCIAL CHARGES

The breakdown of the account is as follows (Euro thousands):

	H1 2019	H1 2018	Change
Interest on EIB loans	218	180	38
Interest on other payables	116	15	100
Discounting on employee benefits	(1)	(13)	12
Charges on interest hedge contracts (IRS)			0
	332	182	150
Realised exchange losses	142	569	(427)
Unrealised exchange losses	(7)	74	(81)
	136	643	(507)
<b>Total</b>	<b>467</b>	<b>825</b>	<b>(358)</b>

Financial charges, amounting to Euro 467 thousand, decreased Euro 358 thousand on the first half of 2018.

This relates to the reduction in exchange differences of Euro 507 thousand, net of the increase in financial expenses of Euro 150 thousand, due for Euro 38 thousand to the receipt of the additional EIB loan for Euro 10 million and for Euro 112 thousand principally from the application of IFRS 16.

Realised exchange losses arise on the collection of receivables and settlement of payables in foreign currencies.

Unrealised exchange losses relate to the period-end translation of receivables and payables in foreign currencies.

### 3.40. INCOME TAXES

“Income taxes” report a net charge of Euro 838 thousand, comprising:

- current tax charges of Euro 1,142 thousand, of which Euro 831 thousand concerning the subsidiary Secosvim S.r.l. and Euro 311 thousand concerning the overseas subsidiaries Regulus S.A. and Avio Guyana S.A.S.;
- deferred tax income of Euro 304 thousand.

The reconciliation between the theoretical and effective IRES corporate income tax is presented below (in Euro thousands):

	Group
Pre-tax result	7,901
Ordinary rate applied	24.00%
Theoretical tax charge	1,896
Effect of increases (decreases) to the ordinary rate:	
Permanent increases	2,545
Permanent decreases	(7,540)
Temporary difference increases	24,270
Temporary difference decreases	(32,338)
Total changes	(13,063)
Utilisation of fiscal losses	
Assessable income/(loss)	(5,164)
Income/(charge) from current IRES	0

### 3.41. EARNINGS PER SHARE

	H1 2019	H1 2018
Group Net Profit (Euro thousands)	6,787	5,948
Number of shares in circulation	26,359,346	26,359,346
Basic earnings per share – in Euro	0.26	0.23
Diluted earnings per Share – in Euro	0.25 <sup>(1)</sup>	0.22 <sup>(1)</sup>

<sup>(1)</sup> The diluted earnings per share was calculated assuming the conversion of the 800,000 sponsor warrants into ordinary shares.

## 4. DISCLOSURE BY OPERATING AND REGIONAL SEGMENTS

### Disclosure by operating segment

In the first half of 2019, the Avio Group continued operating activities in line with previous years, exclusively in the Space business. Consequently, all the assets and liabilities, costs and revenues refer exclusively to a single sector of activity, which corresponds to the consolidation scope of the Group.

The Group workforce numbered 910 at June 30, 2019. At December 31, 2018, Group employees numbered 838.

### Disclosure by regional segment

The regional breakdown of Group revenues (defined based on customer country location), in 2019 (and in line with the previous years) refers completely to Italy and Europe.

Group activities, and new investments, are similarly allocated - on the basis of the same criterion as revenues (customer country location) - entirely in Italy and Europe.

## 5. COMMITMENTS AND RISKS

The Group's principal commitments and risks are summarised in the following table (in Euro thousands):

	30/06/2019
Guarantees given:	
Unsecured guarantees:	
Sureties issued to third parties on behalf of Group	14,914
Other guarantees	3,402
Total guarantees given	18,316
Guarantees received:	
Sureties and guarantees received	1,000
	1,000

### Guarantees granted

Secured guarantees include sureties issued by third parties on behalf of the Group in favour of clients for the execution of contracts and other guarantees in the form of patronage letters issued in the interest of Group companies.

### Sureties and guarantees received

These principally include sureties received from suppliers against orders for supplies to be completed.

### Other commitments

In relation to the associate Termica Colleferro S.p.A., held 40% by Avio and held 60% by S.E.C.I. S.p.A., operator of a thermal electric power plant whose steam production is essential for the functioning of the Colleferro production facility, the following is outlined.

On February 24, 2010, to assist plant construction Termica Colleferro agreed with a banking syndicate a loan for a maximum Euro 34 million, supported by secured and unsecured guarantees and concluding on February 24, 2022.

Also on February 24, 2010, the controlling shareholder SECI issued an independent guarantee for the prompt fulfilment of all payment obligations to the lending banks in the interest of Termica Colleferro, for a maximum Euro 44.2 million.

In consideration of the deteriorated electricity market conditions in the years subsequent to the signing of the loan, in order to comply with the bank covenants, in December 2016 Termica Colleferro restructured its bank debt of

approx. Euro 22 million, mainly by extending the maturity of the residual debt from 2022 to 2027, reducing the interest rate spread and raising the covenant thresholds.

The loan restructuring agreement did not amend the guarantees granted by the shareholders SECI and Avio to the lending banks, with the exception of the extension of the original guarantees to the new maturity date.

For the finalisation of this agreement with the lending banks, in 2014 Termica Colleferro requested and obtained from the shareholders Seci and Avio a commitment letter by which the shareholders committed to grant a shareholder loan for maximum amounts respectively of Euro 18.2 million and Euro 12.1 million, in proportion to the share capital respectively held and cumulatively corresponding to the residual portion of the bank loan at that date. In accordance with this agreement, the shareholder loan shall be disbursed in a number of tranches on the request of Termica Colleferro, based on the operating requirements of the latter and subject to the issue of the loan to this latter by the banks.

At the reporting date, Avio has a financial receivable for the shareholder loan granted to Termica Colleferro of Euro 7.4 million, carried according to the amortized cost method at Euro 6 million. At June 30, 2019, there was no longer any residual commitment upon Avio to grant additional shareholder loans to this associate on the basis of the progressive repayment of its loan by Termica Colleferro. In fact, at June 30, 2019, the residual payable of Termica Colleferro was Euro 16.7 million and the contractual commitment of Avio had a maximum “ceiling” of 40% of this payable, i.e. Euro 6.9 million. As Avio had already disbursed to Termica Colleferro an amount of Euro 7.4 million, there are no longer residual commitments upon Avio under these agreements (the original commitment as per the 2014 agreements for Avio was Euro 12.1 million).

Avio however has not undertaken any commitment to increase the share capital of the associate.

The above loan issued to Termica Colleferro by the banks stipulates compliance by the company with the following financial covenants:

- 1) Net Financial Debt / Equity (NFP/E); and
- 2) Net Financial Debt / EBITDA (NFP/EBITDA).

In order to ensure compliance, Termica Colleferro, Avio, SECI and the lending banks signed in July 2014 an addendum to the loan contract. In accordance with this addendum, Termica Colleferro has the right to remedy violation of the financial covenants (“Equity cure”) through the payment by the shareholders SECI and Avio to Termica Colleferro (pro-quota according to the limits of the respective share capital holdings in the company) of an amount as share capital increase and/or a shareholder loan which overall remedies the violation (“Cure amount”).

At the present reporting date, the financial covenants established under the loan had been complied with.

Where Termica Colleferro does not comply with the covenants established by the above loan, Avio and SECI may be called to undertake additional share capital increases or grant an additional shareholder loan (subordinated) in a measure proportional to their respective holdings.

On May 31, 2019, seven Seci Group companies, including the holding company Seci S.p.A, three companies operating in the energy sector, one in the agro-industrial sector, one in the building/real estate sector and the last in the factoring sector, presented a voluntary arrangement with creditors application to the Bologna Court, agreed following the Order issued by the delegated Judge. The Court therefore granted a deadline for the preparation and

presentation of an industrial plan for the maintenance of the Group as a “performing” concern until November 4, 2019. At June 30, 2019, the associate Termica Colleferro was not included in the companies presenting an administration procedure and is continuing with its operations according to expectations, is honouring its bank loan commitments and has complied with the relative covenants.

### **Legal and tax cases and contingent liabilities**

At the reporting date, a number of Group companies were either plaintiffs or defendants to legal, civil, administrative and tax cases related to normal business operations, as outlined below.

Avio S.p.A. and the subsidiaries have established in their financial statements and, therefore, in the consolidated financial statements, appropriate provisions for risks and charges to cover foreseeable liabilities relating to disputes of differing natures with suppliers and third parties, both within the courts and extra-judicially, the relative legal expenses, in addition to administrative sanctions, penalties and client indemnities. In establishing provisions, account was taken of: (i) the risks related to each dispute; and (ii) the applicable accounting standards, which require the provisioning of liabilities for probable and quantifiable risks.

Avio Group management consider the risks and charges provision estimates as appropriate with regards to the Group’s overall amount of contingent liabilities.

In addition, with regards to disputes with a possible or remote risk of loss, or of an incalculable amount (of a limited number), in accordance with the accounting standards no risks provision has been established.

The Group in addition bases its risk of potential loss estimates on assessments/expectations with regards to the expected final judgment on the dispute, which remains however linked to the intrinsic uncertainty of each judgment, for which differing outcomes (whether favourable or unfavourable) for the Group against the *ex-ante* estimates may not be excluded.

A summary of current proceedings considered by the Group as significant on the basis of the amount or matters considered is provided below.

## *Legal disputes*

### *Municipality of Colferro/Secosvim (Arpa1 and Arpa2)*

In March 2004, the Extraordinary Commissioner of the Municipality of Colferro issued ordinances to the Group for emergency safety, characterization and reclamation of the area surrounding the Group facilities in Colferro, relating to hexachlorocyclohexane contamination of the soil, the subsoil and the groundwater of these areas, in particular the Sacco River valley, in relation to which a socioeconomic-environmental emergency was declared by Ministerial Decree of May 19, 2005, extended on a number of occasions and ceasing only in October 2012. In particular, the Arpa1, Arpa2 and Cava di Pozzolana sites and all the old industrial discharge sites used up to the 1970's were identified, at which a range of pollutants were found, with hexachlorocyclohexane detected only in Arpa1. Considering that the pollution of the Sacco River originated not from the above sites but from the service areas of the company Caffaro (chemical industry operating in the district until the end of last century) relating to the discharge of residues of this substance accumulating during production, the Group challenged these orders before the administrative courts and these actions are no longer valid as superseded by the situation of fact and the actions taken in this regard, with the Group undertaking emergency safeguarding of the polluted areas.

The Group and, in particular, Secosvim as merely the landowner, although it has always stated its lack of responsibility for the above-mentioned pollution to avoid liability actions by the competent authorities, subsequent to the arrangement with the Commissioner's Office for the Sacco Valley Emergency, completed the characterization of the soil and the site's groundwater, and undertook, where soil and subsoil conditions were found to be inadequate in view of the applicable legislation, the recovery operations within its remit. Specifically, the activities related to the Arpa1, Cava di Pozzolana and Benzoin and derivative sites have been completed, while the Arpa2 land recovery is the responsibility of the Lazio Region.

### *Criminal case against Consorzio Servizi Colferro for pollution of the Sacco river*

As a result of the discovery of toxic substances in milk in June 2005 and the preliminary investigations of February 2009, in March 2010, the Republic of Velletri Public Prosecutor requested the citation of a number of individuals from Caffaro S.r.l., Centrale del Latte di Roma S.p.A. and Consorzio Servizi Colferro (the legal representative and the presumed technical manager), alleging negligence causing the environmental disaster from the poisoning of the Sacco River waters and of substances intended for human consumption (milk), occurring in Colferro, Segni and Gavignano until December 2008, and with regard to the consortium alone, the discharge of industrial wastewater without the prescribed authorizations in the same areas until November 2006. In particular, despite the fact that the Consortium was the sole party responsible for the final discharge of the industrial wastewater treatment plant of the area, its senior executives are accused of a failure to provide adequate safety measures, control systems and/or purifying treatments to prevent white water and first flush from the drainage of some areas in the area, collected by a trench facing the consortium wastewater treatment plant, flowing into the Sacco River, resulting in the contamination of the feed of dairy animals raised near the river. The Consortium operates on a non-profit basis with a main object to collect and treat waste water from the sites belonging to the consortium and sites in the industrial district of Colferro.

In July 2010, the civil parties summoned to the proceedings (including the Municipality of Colleferro, the Municipality of Gavignano, the Municipality of Segni and the Province of Rome) requested and obtained the citation of Consorzio Servizi Colleferro, Centrale del Latte SpA di Roma and Caffaro s.r.l., as civil parties responsible for the allegations against the defendants. Accepting the request of the Public Prosecutor, on July 8, 2011, the Preliminary Hearing Judge referred the aforementioned subjects to the first judicial hearing of November 2011, which was postponed several times until the October 2012 hearing. 18 of Law 349/1986 and Part VI of Legislative Decree no. 152, sent to Consorzio Servizi Colleferro and the aforementioned defendants, also as per art. 2943 of the Civil Code, a claim for compensation for environmental damage in relation to the events described above. Consorzio Servizi Colleferro and the defendants rejected the request advanced by the Ministry, denying any liability for compensation for that alleged in the criminal proceedings. At the hearing of November 2012, the court upheld the voiding of the notification as per 415-bis of the criminal code for erroneous sending to the domicile of a defendant, resulting in regression of the proceedings (for all defendants) to the state at the time of the execution of the void deed, and thereafter restitution of the deeds to the Public Prosecutor for renewal of the notification as per 415-bis. 415-bis of the criminal code upon the defendant in question and, after August 2013, filed a request for citation of all defendants. The Preliminary Hearing Judge then set a preliminary hearing for February 2014. On that occasion, the Ministry of the Environment filed a new civil lawsuit against the defendants and the civil parties responsible, stating their claims for environmental damage for an amount of Euro 10,000,000.00, plus an additional Euro 10,000,000.00 for non-material damages, as a result of a new estimate limited to the pollution of the Sacco River on the basis of the contested events in the cited period (2001-2005). In addition, other parties (private and public bodies) have renewed or filed a civil action suit against the defendants and the civil parties responsible. At the subsequent hearing of May 2014, the Preliminary Hearing Judge declared lack of jurisdiction to proceed with regards to the poisoning offenses (Article 452, paragraph 1, No. 3 of the Criminal Code) and the unauthorized discharge due to the statute of limitations; all defendants were therefore referred to the hearing of July 2014 before the Velletri single justice Court for the environmental disaster offense as per Article 449, paragraph 1 of the Criminal Code (in relation to Article 434 of the Criminal Code). At the hearing of July 2014, before the Velletri Court, the judge, citing the failure to notify some defendants, preliminarily referred the case to the October 2014 proceedings.

At the subsequent hearings of 2014 and 2015, the hearing continued with review of the Public Ministry texts, until the hearing at the beginning of 2015 where the question concerning the statute of limitations was raised with broad discussion by the parties. The Court thereafter withheld decision to the subsequent hearing, by which the civil parties were required to draw up any written petition. At the hearing of the end of October 2015 the Court rejected - at the current state of proceedings - the questions raised as limitation arguments and, following the reading of the ordinance, the defence raised the question of the unconstitutionality of Article 157, paragraph 6 as per the "Cirielli" law, with regards to the section concerning the doubling of the statute of limitations for the offense in question, making such of a similar length to the corresponding alleged hypothesis, therefore violating (in the view of the defence) Article 3 of the Constitution. At the hearing of November 2015, the Court considered the issue relevant and not manifestly unfounded and suspended the proceedings and forwarded the documents to the Constitutional Court. The Constitutional Court, with judgment No. 265/2017, declared the question of unlawfulness raised as unfounded, considering that the harmonisation of the terms to establish the parameters for deliberate and negligent culpability for the disaster as per Article 434 of the Criminal Code falls within the legitimate exercise of legislative discretion. Following the decision by the Constitutional Court, the case was returned to the Court of Velletri. At the hearing held on October 25, 2018, presided over by Judge Luigi Tirone, the evidentiary filings were repeated and the trial was added to the docket according to the following schedule:

December 6, 2018: testimony from witnesses and consultants to the civil claimants;  
December 13, 2018: testimony from witnesses and consultants to the civil claimants (continued);  
January 10, 2019: testimony from witnesses and consultants to the civil claimants (conclusion);  
February 28, 2019: testimony from witnesses to the defence;  
March 14, 2019: testimony from witnesses to the defence (conclusion);  
March 28, 2019: expert witnesses to the defence;  
April 11, 2019: testimony from the defendants;  
April 18, 2019: closing arguments.

At the hearing on December 6, 2018 the hearing scheduled for Thursday, December 13, 2018 was cancelled and the hearing scheduled for January 10, 2019 was confirmed for testimony from all the other witnesses and consultants named by the civil claimants (including the Mayor of Colferro). At the hearing of December 6, 2018, the court ruled that the terms for the lawyers to the civil claimant Laurenzano and Giacomelli (Ass.ne Codici Onlus), Cevalotto, Barra (Province of Rome), and Caravita di Toritto (Municipality of Anagni) to enter evidence had expired due to the failure to issue summons to the witnesses previously named.

The court also granted our application for the return of the seized property. The court order, release of the seized property and repossession of the areas were formalized by the competent Environmental Operating Unit. The court fully acquitted Secosvim of the charges, finding that the company had undertaken extensive safety and reclamation measures. The court also ordered periodic inspections by the Environmental Operating Unit until the reclamation work is completed.

Testimony from the defendant was scheduled for the hearing of June 24, 2019; the Court thereafter set additional hearings for continuation of the process: July 8, 2019, for conclusion of the defendant's testimony, September 23, 2019 for closure of investigatory actions, and October 14, 2019 for PM and the civil parties hearing and November 18, 2019 for the defensive hearing.

In December 2015, the Consortium was held directly by the Incorporated Company 18% and indirectly through Secosvim S.r.l. for 9%, and by the other consortium members Caffaro S.r.l. (32%), Alstom Ferroviaria S.p.A. (8%), EP Sistemi S.p.A. (3%), Key Safety Systems S.r.l. (8%), Mobilservice S.r.l. (3%), Simmel Difesa S.p.A. (approx. 11%) and ARC Automotive Italia S.p.A. (8%). At the reporting date, Società Consortile per Azioni Servizi Colferro is held by the following shareholders: Avio (32%), Secosvim (20%), Termica Colferro S.p.A. (6%), Caffaro s.r.l. in liquidation (5%), Alstom Ferroviaria S.p.A. (5%), Municipality of Colferro (5%), EP Sistemi S.p.A. (6%), Lazio Ambiente S.p.A. (6%), Key Safety Systems S.r.l. (5%) and Simmel Difesa S.p.A. (10%).

Based on the advice of its legal advisers on the expected outcome of the proceedings and in accordance with IFRS accounting standards, Avio has not made any provision, considering the possibility remote of a criminal conviction of the Consortium members and, consequently, of the Consortium itself in civil liability to compensate for damage resulting from the offense. In addition, Avio considers the quantification of the claim for damages to be abnormal and arbitrary, and in any case formulated in apparent non-compliance with the special environmental damage law which provides for partial and non-joint liability of those responsible for environmental damage.

However, where criminal charges against the defendants are proven, and if the Consortium (at the reporting date called Società Consortile per Azioni Servizi Colferro) was required, definitively or on a provisional basis, to

indemnify the damages resulting from the criminal offenses, or if the Consortium was otherwise responsible for the environmental damage resulting from the pollution of the Sacco Valley, the current Servizi Colleferro will be liable to compensate the damages to the extent of its liability. In this circumstance, Avio may be called, as a consortium member at the time of the offence, to provide Società Consortile per Azioni Servizi Colleferro with the funds necessary to cover the damages for compensation or jointly respond through use of consortiums funds.

#### Secosvim/Caffaro

The Colleferro industrial district includes an industrial area known as “Benzoin and derivatives” that until December 31, 2007 was leased to Caffaro S.p.A., which since September 2009 was subject to an extraordinary administration proceeding. For the collection of Caffaro debts, Secosvim submitted an application for admission to its insolvency proceedings, which was accepted.

At the same time, the Emergency Commissioners Office of Sacco Valley issued a claim for damages against Caffaro for land pollution for an estimated amount of approx. Euro 7 million, corresponding to the expected cost for the recovery of these areas. Caffaro challenged in the period between 2008 and 2012, before the Lazio Regional Administrative Court a series of administrative acts (minutes of the conferences of service, notes with which Caffaro was requested to present contaminated waste disposal plans, approval deeds of characterization activities), requesting cancellation, with which the Commissioner’s Office sought damages from Caffaro. These motions were notified also to Secosvim as owner of the Benzoin area (leased by Caffaro until 2007), which was therefore summoned before the court in accordance with law.

As the company Caffaro may claim these costs from Secosvim as the owner of the buildings, Secosvim therefore has requested since October 2009 before the Velletri court a prior technical declaration (“ATP”) to establish any liability upon Caffaro for the contamination of the Benzoin area, which concluded with the filing of an opinion which confirmed the direct liability of Caffaro for the above-stated contamination.

In this regard, during the proceedings the State Prosecutor requested the Regional Administrative Court to assess the judicial incompatibility of the appeal decision. On conclusion of the hearing of 6.12.2016, the Lazio Regional Administrative Court consequently adopted separate ordinances (of identical tenor), with which (for each appeal) the President of the Counsel was requested to file within 90 days documented clarifications with regards to the criminal proceeding pending before the Velletri Court No. 1831/2014 (as reported in the previous paragraph, relating to the *“Criminal proceeding against Consorzio Servizi Colleferro with regards to the pollution of the Sacco river”*). The hearing of the above appeals was held on June 20, 2018, while publication of the investigation order is awaiting publication, by which the Court will set a new deadline for the Chair of the Court to file documented clarifications to facilitate consideration of the criminal case pending before the Velletri Court. The next Hearing was postponed to June 24, 2020.

Information is provided below on the most significant tax audits and disputes which, at the date of the present financial statements, concerned Avio S.p.A. and its subsidiaries, with details on the specific disputes and the relative amounts.

#### **A) Avio S.p.A. tax audits and disputes**

A.1) *Tax audits and disputes in course*

A.1.1.) *The general tax audit initiated on December 18, 2015 by the Rome Finance Police*

On December 18, 2015, the Rome Finance Police Tax Unit (hereafter “Finance Police” or “Auditors”) began a general tax audit of Avio S.p.A. with regards to income, IRAP and other taxes, and subsequently extended the investigation to VAT limited to certain specific issues, in relation to the tax years 2011, 2012 and 2013.

This audit in addition included the subsidiary Regulus (see the “Subsequent events” section of the Directors’ Report).

At the reporting date this general tax audit:

- limited to the subsidiary Regulus S.A. formally concluded with a formal assessment letter relating to the tax years 2010 to 2016. To date, the Tax Agency has not implemented these findings with tax assessment notices;
- limited to the parent Avio S.p.A. formally concluded with the closure notice received on July 3, 2018, with the receipt on November 9, 2017 and May 31, 2018 of information concerning the commercial transactions undertaken with Nuovo Pignone Holding S.p.A. (previously GE Italia Holding S.p.A.) in the years 2013 and 2014.

*A.1.1.2) Settlement Notice of July 28, 2016*

As part of the general audit conducted at the end of 2015 and concluding in 2017, the Finance Police challenged Avio S.p.A., re-categorising the conferment of the Aeroengine business unit from Avio S.p.A. to GE Avio S.r.l., and the subsequent sale of the shares of this latter company, as a direct transfer of the business unit and, consequently, raised the issue of the alleged non-payment of the indirect taxes applicable to the transfer of the business unit.

Following on from this matter, on July 28, 2016 the Tax Agency notified Avio S.p.A. of a settlement notice for registry, mortgage and land taxes for a total of Euro 58,220 thousand. These concern in particular registration tax for Euro 55,641,285, mortgage tax for Euro 1,719,057 and land taxes for Euro 859,529.00, with a total increased charge of Euro 58,219,871.

With regards to the substance of the matter raised in the settlement notice, such falls within the scope of complex jurisprudence, which is now assessed also in view of recent regulatory changes - as outlined below - which may impact the framework on which the Tax Agency, and previously the Finance Policy, based the challenge. In addition, also in view of the circumstances of the sale of the company GE Avio S.r.l. (containing the AeroEngine sector operations of the Avio Group), it is considered that Avio S.p.A. has the opportunity to raise a number of defenses against this dispute.

For these reasons, on September 26, 2016, Avio S.p.A. presented - together with the General Electric Group - an appeal, challenging the settlement notice within the deadline established by the applicable rules, suspending therefore the collection terms. This appeal was rejected by the Turin Provincial Tax Commission with judgment 729/05/17 of May 25, 2017.

This decision was appealed by Avio S.p.A. before the Piedmont Regional Tax Commission, which in judgment 1740/18 rendered on October 24, 2018 and filed on November 7, 2018 granted the Company's appeal in full. At the time of this report, there was no record of any appeal by the Italian Tax Office of the above judgment before the Court of Cassation.

With regards to the settlement notice, on the basis of specific contractual provisions, the General Electric Group is required to indemnify Avio S.p.A. for any liabilities which may arise with regards to the indirect taxes relating to the disposal of the company GE Avio S.r.l. (containing the AeroEngine segment operations of the Avio Group), in addition to the provision to Avio S.p.A. of any amounts requested by the Tax Agency by the established payment deadlines. In this regard, on August 12, 2016, following the notification from the Tax Agency to Avio S.p.A. of the settlement notice for a total of Euro 58,220 thousand, GE Italia Holding S.p.A. confirmed to Avio S.p.A. its punctual fulfilment of the above contractual stipulations. In view of that above, and particularly the notification of the above-stated settlement notice which quantifies the alleged indirect taxes as Euro 58,220 thousand, in addition to the above payments of the contractually established indemnities and confirmed subsequently to the settlement notice at issue, a tax payable was recognised to the financial statements in relation to the liabilities which may arise from the settlement notice and a corresponding receivable from the General Electric Group recorded for the same amount of Euro 58,220 thousand.

Finally, it bears remarking that lawmakers have addressed the subject-matter of this dispute, which has to do with the application of Art. 20 of Italian Presidential Decree 131/1986 (the “Consolidated Law on Registration Tax”), in paragraph 1084 of Law 145 of December 30, 2018 (the “2019 Finance Act”), expressly granting the force of an official interpretation – and thus retroactive effect – to Art. 1, paragraph 87, letter a) of Law 205 of December 27, 2017 (the “2018 Finance Act”), which amended Art. 20 of the Consolidated Law on Registration Tax, limiting the discretion of the revenue authorities in reclassifying deeds subject to registration. In the light of the provision of the 2019 Finance Act, the provision introduced by the 2018 Finance Act should therefore also apply retroactively, for the benefit of the taxpayer, with the result that there is no longer any case to answer.

*A.2) Tax audits and disputes concluded with financial effects in 2019*

*Questionnaire of the Piedmont DRE of June 4, 2019 concerning transfer prices between Avio S.p.A. and Regulus S.A. - 2014 Tax period*

On June 4, 2019 the Piedmont DRE of the Tax Agency sent Avio S.p.A. questionnaire No. Q00041/2019 requesting information and documents concerning transactions undertaken in the 2014 tax year between the company and the subsidiary Regulus S.A., in order to assess the correct tax treatment of the remuneration according to the conditions and prices which would be paid between independent parties operating under free competition conditions and in comparable circumstances in accordance with Article 110, paragraph 7 of the Income Tax Law (covering the tax treatment of transfer pricing), on the basis that Regulus S.A. is tax resident in French Guyana.

Avio S.p.A. acted promptly, supported also by its tax consultants, to provide the Piedmont DRE with all of the requested information and documents.

The investigations of the Office are still ongoing.

**B) Secosvim S.r.l. -Tax audits and disputes**

A brief description of the Secosvim tax dispute, in addition to a brief description of the main related contingent liabilities, is outlined below.

*B.1 Tax dispute with the Rome Customs Agency with regards to excise and provincial/municipal additions in the electricity sector*

Period 2001 - 2005: with regards to the audit by the Rome Finance Technical Department with regards to consumption tax and related supplements due on electricity consumption in the January 2001 - August 2005 period, the appeal against the second level judgment in favour of Secosvim by the Customs Agency and the relative counter appeal by Secosvim are pending before the Court of Cassation. On September 29, 2017 it was considered appropriate, in view of the unfavourable opinion on the outcome of the dispute, to undertake an agreed settlement procedure with the Customs Agency pursuant to Article 5-*bis* Legislative Decree 193/2016, with payment in four

annual instalments (plus interest of 2.10% annually) of the total amount of Euro 846 thousand, with the first instalment, totalling Euro 211 thousand, paid in November 2018, with the second was paid, with interest, in September 2018. The settlement stipulated the cancellation of interest, late payment penalties and sanctions.

Period 2006 - 2010: with regards however to the issues raised by the Rome Finance Technical Department, also with regards to excise and supplements in the electricity sector, concerning the years 2006-2010 and challenged by Secosvim as considering such unfounded, the Lazio Regional Tax Commission (CTR) rejected the company's appeal (May 20, 2015), despite the obvious error of the first level judgment concerning the application of penalties (Euro 280,000). Secosvim therefore appealed to the Court of Cassation. The provisional payment, activated in 2013 and paid in monthly instalments, was made in May 2018 on a cautionary basis, with request of repayment of the excess amounts following the agreed settlement procedure pursuant to Article 6 of Legislative Decree 193/2016. The judgment of the Supreme Court following the hearing of February 21, 2019 is currently pending.

#### *B2 Tax dispute with the Municipality of Segni relating to Property tax (ICI)*

Tax year 2011: with tax assessment notice of December 15, 2016, the Municipality of Segni initiated, for the tax year 2011, recovery of property taxes of Euro 36 thousand, plus penalties and interest, for a total of Euro 57 thousand. Secosvim, following an unsuccessful settlement procedure, appealed to the Rome Provincial Tax Commission, which in June 2018 rendered a judgment unfavourable to the Company. In February 2019 Secosvim lodged a timely appeal against the unfavourable judgment rendered by the Rome Provincial Tax Commission.

Tax years 2012 and 2013: with assessment notice of January 12, 2018, the Municipality of Segni similarly initiated the recovery of higher taxes and the relative penalties, totalling Euro 14 thousand. In July 2018, Secosvim proposed an appeal at the Rome Provincial Court. At the date of preparation of the present financial statements, discussion of the case was pending.

#### *B.3 Tax dispute relating to non-application of VAT on reclamation costs recharged to Avio in the years 2010, 2011 and 2012*

In 2013, Secosvim was notified of two VAT assessments for the years 2010 and 2011 concerning the alleged non-application of taxes to reclamation costs recharged to the consolidating company S.p.A. (total amounts, including penalties and interests, of Euro 2.5 million). The Company appealed the above assessment notices before the Rome Provincial Tax Commission, which found in favour of the Company in its judgment of September 7, 2015. The Lazio CTR on December 12, 2016 accepted the appeal of the Tax Agency against the judgement of the Rome CTP. Therefore, Secosvim appealed to the Cassation Supreme Court in June 2017. The provisional payment of this amount of Euro 2.5 million has not yet been activated, although the related request for suspension was rejected by the Rome CTP in December 2017.

On October 31, 2017 the assessment notice for the following year 2012 was received for higher taxes of Euro 644 thousand, in addition to penalties and interest of Euro 127 thousand, and against which an appeal was made to the

Rome CTP. The Rome Provincial Tax Commission rejected the Company's appeal by judgment 18883/18 of November 11, 2018.

With the digitally presented application by May 31, 2019, Secosvim complied with the expedited settlement of the pending tax disputes as per Article 6 of Legislative No. 119 of October 23, 2018, converted with amendments by Law No. 136 of December 17, 2018. Under the expedited settlement, the company is required to pay only taxes, for a total amount of Euro 1.6 million, without the application of penalties and interest. This amount shall be paid in 20 equal quarterly instalments, the first of which was paid on May 31, 2019. With regards to the amounts so paid, Secosvim may subsequently be reimbursed by the parent company Avio, with a consequently neutral effect for the Group, as VAT recharged for reimbursement following an expedited settlement is deductible, as recognised by the Tax Agency in its most recent communications (for all, see circular 35 of 2013 and latterly response No. 156 of 2019).

*B.4 Correction and settlement of increased registration, mortgage and land taxes from the reclassification as the disposal of a business, with related recalculation of goodwill relating to the business unit, of the transfer of the "Energia Colleferro" business unit to Termica Colleferro S.p.A. and the subsequent transfer of the investment in this latter to the indirect parent company Avio S.p.A..*

The Tax Agency appealed before the Emilia Romagna CTR, judgment No. 95/10/14 of the Bologna CTP of December 9, 2013, approving the appeal of Secosvim concerning the correction and settlement notice for additional registration, mortgage and land taxes from the reclassification as the disposal of a business of the transfer of the "Energia Colleferro" business unit to Termica Colleferro S.p.A. and the subsequent transfer of the investment in this latter to the indirect parent company S.p.A. The amount of the dispute is Euro 130 thousand. By judgment 2300/6/18, rendered on September 24, 2018, the Emilia Romagna Regional Tax Commission rejected in full the appeal lodged by the Office, granting the Company's claims.

In parallel, The Tax Agency appealed before the Emilia Romagna CTR, judgment No. 94/02/16 of the Bologna CTP of January 15, 2016, which approved the related appeal of Secosvim concerning the correction and settlement notice for additional registration, mortgage and land taxes from the recalculation of the goodwill of the above-stated business unit. The amount of the dispute is Euro 17 thousand. At the hearing on December 17, 2018, the Emilia Romagna Regional Tax Commission ordered a stay of the proceeding pending the resolution of the dispute concerning the correction and settlement notice for additional registration, mortgage and land taxes from the reclassification as the disposal of a business of the transfer of the "Energia Colleferro" business unit to Termica Colleferro S.p.A. and the subsequent transfer of the investment in this latter to the indirect parent company Avio.

### **C) Spacelab S.p.A. (ex ELV S.p.A.) - Tax audits and disputes.**

It should be noted that this company had not been and is not involved in any tax audits or disputes at the reporting date.

#### **D) Europropulsion S.A. – Tax audits and disputes.**

Europropulsion was subject to a Tax Assessment by the French Tax Authorities with regards to the “*taxe professionnelle*” (an indirect tax adopted in France similar to IRAP) on ESA assets used by the company initially for tax years 2009, 2010 and 2011 and subsequently for 2012 and 2013.

The amounts contested are:

- for the years from 2009 and 2011, initially amounting to Euro 1.6 million, paid by the company in 2014. This amount was thereafter reduced to Euro 0.9 million following the recognition of partial relief of Euro 684 thousand by the French tax authorities;
- for the years 2012 and 2013 amounting to approx. Euro 250 thousand.

For the years 2009-2011, Europropulsion presented a first level appeal at the competent Tax Court, which judged against the company; the company appealed this decision on September 9, 2016.

With judgment of November 11, 2017, the competent French tax authorities cancelled the challenge concerning financial year 2010.

The total amount of tax liabilities arising from this issue for the years from 2009 to 2017 was estimated at approx. Euro 2.190 million. However, the company has not made any accrual to the tax risks provision as considering, also on the basis of the opinion of its consultants, to have valid arguments in defence of its position.

## 6. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT POLICIES

### Fair value of financial assets and liabilities and calculation models utilised

In relation to any financial instruments recorded in the balance sheet at fair value, IFRS 7 requires that these values are classified based on the hierarchy levels which reflects the significance of the input utilised in the determination of fair value. The following levels are used:

- level 1 - assets or liabilities subject to valuation listed on an active market;
- level 2 - input based on prices listed at the previous point, which are directly observable (prices) or indirectly (derivatives from the prices) on the market;
- level 3 - input which is not based on observable market data.

The company and the Avio Group did not have derivative financial instruments in place at June 30, 2019.

### Types of financial risks and related hedging

The Company and the Group are not exposed to financial risks through its operating activities, in particular relating to:

- credit risks, related to commercial transactions with clients and funding operations;
- liquidity risk, related to the availability of financial resources and access to the credit market.

These financial risks are continually monitored, undertaking initiatives to offset and contain potential impacts through appropriate policies and, where in general considered necessary, also through specific hedging instruments (currently not necessary as the loan interest rate with the EIB is fixed and competitive compared to the market).

This section provides qualitative and quantitative disclosure upon the impact of these risks on the Company and on the Group.

The following quantitative data cannot be used for forecasting purposes or completely reflect the complexity and the related market reactions which can derive from any change in assumptions.

### Credit Risk

Credit risk represents the exposure of the Company and of the Group to potential losses due to the non-compliance with obligations by commercial and financial counterparties.

The exposure to credit risk is essentially related to receivables recognised to the financial statements, particularly trade receivables and guarantees provided in favour of third parties.

The maximum theoretical exposure to the credit risk for the Group at June 30, 2019 essentially concerned the overall carrying amount of trade receivables, whose value at this date amounted to Euro 3,495 thousand.

This amount was recognised to the Assets section of the Balance Sheet, as the net balance between the nominal value of trade receivables and, as counter-entry, advances to be received.

Regarding the reasons for the exposure to credit risk represented by receivables net of “advances to be repaid”, in accounting terms, the issuing of invoices involves as a counter-entry, against the recognition of an asset from the clients, the recognition of a liability concerning the advances to be received. These are both recognised to the balance sheet. The ageing analysis therefore is made net of the above-stated advances.

The main Group clients are government bodies and public sector clients, which by their nature do not present significant risk concentrations (ESA - European Space Agency, Arianespace, ArianeGroup).

In addition, operating on an order basis, the Avio Group plans the management of advances so as to attain the funding before and during the incursion of order costs, on the basis of the various contractual milestones and mitigating therefore the risk regarding the payment of receivables against the initiated production activities.

Based on an analysis of overdue trade receivables at June 30, 2019, trade receivables net of a doubtful debt provision were recorded of Euro 482 thousand. The overdue amounts were therefore not significant and mainly relate to timing factors.

### **Liquidity risk**

The Company and Group’s liquidity risk concerns any difficulties in obtaining at appropriate conditions the funding necessary to support operations. The principal factors which influence liquidity are, on the one hand, the resources generated and absorbed by the operating and investment activities and on the other the conditions concerning the maturity of the payable or the liquidity of the financial commitments.

Cash flows, funding requirements and liquidity are centrally monitored and managed, also through centralised treasury systems involving the main Group Italian and overseas companies, in order to ensure the timely and efficient sourcing of funding or the appropriate investment of liquidity, optimising the management of liquidity and cash flows. The Group periodically monitors forecast and effective cash flows and updates future cash flow projections in order to optimise liquidity management and calculate any funding requirements.

The currently available funds, in addition to those that will be generated from operating and financial activities, are considered sufficient to permit the Group to satisfy its requirements for investment activities, working capital management and the repayment of debt on maturity.

### **Market risk**

With regards to the current financial structure of the Company and of the Group and the fact that the operating currency is almost exclusively the Euro, the company is not considered to currently be subject to significant market risks from fluctuations in exchange rates or interest rates on financial receivables and payables.

The Company and the Group, considering that stated with regards to the insignificant market risk related to exchange rate and interest rate movements, at June 30, 2019 had not undertaken specific cash flow hedges in relation to these types of risks.

### ***Interest rate risk***

The company has two loans with the European Investment Bank (EIB) for a total of Euro 50 million, at a competitive interest rate compared to the market.

Therefore, this risk is not considered applicable to the company and, therefore, to the Avio Group.

## 7. RELATED PARTY TRANSACTIONS

Avio regularly undertakes commercial and financial transactions with its subsidiaries and jointly-controlled companies, consisting of transactions relating to ordinary operations and undertaken at normal market conditions. In particular, these concern the supply and purchase of goods and services, including of an administrative-accounting, tax, IT, personnel management and assistance and consultancy nature, and the relative receivables and payables at period-end and funding and centralised treasury management transactions and the relative charges and income. These transactions are eliminated in the consolidation and consequently are not outlined in this section.

The related parties of the Avio Group are identified on the basis of IAS 24 - *Related Party Disclosures*, applicable from January 1, 2011, and are the parent companies, companies with a connection with the Avio Group and its subsidiaries as defined by the applicable rules, companies controlled but not consolidated within the Avio Group, associates and jointly-controlled companies of the Avio Group and other investee companies.

Until the effective acquisition date by Space2, Leonardo and In Orbit, Leonardo - on the basis of rights arising under the Cinven shareholder agreement - had a connection with the Avio Group, although formally holding an investment in Avio under the threshold established by the IAS and Article 2359 of the Civil Code, final paragraph. Following the listing, although the shareholder agreement with Cinven had lapsed, Leonardo S.p.A. maintained this connection with the Avio Group on the basis of the increase of its investment in the Incorporated company over the threshold established by the above-stated rules.

The following tables present the quantification of transactions with related parties not falling within the Group consolidation on the Balance Sheet at June 30, 2019 and on the Group Income Statement for H1 2018 (in Euro thousands):

30 June 19								
Counterparty	Trade receivables	Other current assets	Contract work-in-progress	Non-current financial assets	Trade payables	Other current liabilities	Advances for contract work in progress	Financial liabilities
Leonardo S.p.A.					825	223		
MBDA Italia S.p.A.	17		4,945				417	
MBDA France S.A.			9,738				936	
Thales Alenia Space Group			147		250		126	
<b>Companies with a connecting relationship and relative investee companies</b>	<b>17</b>	<b>0</b>	<b>14,830</b>	<b>0</b>	<b>1,075</b>	<b>223</b>	<b>1,479</b>	<b>0</b>
Termica Colleferro S.p.A.	756			6,032	632			1,473
Europropulsion S.A.	515		16,747		6,332		20,338	16,749
Potable Water Services Consortium	214				(85)			
Servizi Colleferro - Consortium Limited Liability Company	370	366						
<b>Associates and jointly controlled companies</b>	<b>1,855</b>	<b>366</b>	<b>16,747</b>	<b>6,032</b>	<b>6,879</b>	<b>0</b>	<b>20,338</b>	<b>18,222</b>
<b>Total related parties</b>	<b>1,872</b>	<b>366</b>	<b>31,576</b>	<b>6,032</b>	<b>7,954</b>	<b>223</b>	<b>21,817</b>	<b>18,222</b>
<b>Total book value</b>	<b>3,495</b>	<b>13,656</b>	<b>42,402</b>	<b>6,032</b>	<b>120,120</b>	<b>21,936</b>	<b>30,225</b>	<b>73,417</b>
<b>% on total account items</b>	<b>53.6%</b>	<b>2.7%</b>	<b>74.5%</b>	<b>100.0%</b>	<b>6.6%</b>	<b>1.0%</b>	<b>16.8%</b>	<b>24.8%</b>

In H1 2019, the main income statement transactions by the Group with related parties were as follows (in Euro thousands):

Counterparty	30 June 19			
	Operating Revenues and changes in contract work-in-progress	Operating Costs <sup>(1)</sup>	Financial Income	Financial Charges
Leonardo S.p.A.		252	-	-
MBDA Italia S.p.A.	1,995	-	-	-
MBDA France S.A.	7,331	-	-	-
Thales Alenia Group		600	-	-
<b>Companies with a connecting relationship and relative investee companies</b>	<b>9,326</b>	<b>852</b>	<b>0</b>	<b>0</b>
Termica Colleferro S.p.A.	67	4,196	220	10
Europropulsion S.A.	66,423	11,815		
Potable Water Services Consortium	1	150		
Servizi Colleferro - Consortium Limited Liability Company	1	313	-	-
<b>Associates and jointly controlled companies</b>	<b>66,492</b>	<b>16,474</b>	<b>220</b>	<b>10</b>
<b>Total related parties</b>	<b>75,818</b>	<b>17,326</b>	<b>220</b>	<b>10</b>
<b>Total book value</b>	<b>191,244</b>	<b>180,673</b>	<b>292</b>	<b>467</b>
<b>% on total account items</b>	<b>39.64%</b>	<b>9.59%</b>	<b>75.23%</b>	<b>2.14%</b>

<sup>(1)</sup> The account includes raw material consumables, service costs and personnel expenses.

#### *Transactions with companies with a connecting relationship and relative investee companies*

The transactions with Leonardo S.p.A., considered a company with whom a connecting relationship exists, concern assistance and consultancy services. Transactions with investee companies by Leonardo are typically of a commercial nature.

With regards to the client MBDA Italia S.p.A., the guarantees issued by leading credit institutions cover prompt compliance with the contractual obligations undertaken by Avio for the Camm-er orders. Their release is based on completion of the relative contractual milestones.

#### *Transactions with non-consolidated subsidiaries*

Group transactions with non-consolidated subsidiaries concern ordinary operating activities and are concluded at normal market conditions.

#### *Transactions with associates and jointly-controlled companies*

Company transactions with associates and jointly-controlled companies may be summarised as follows:

- trade receivables, relating to revenues from the sale of company core business products, as part of ordinary operations and concluded at normal market conditions. In particular, with regard to the company

Europropulsion S.A., revenues are included from the sale of company core business products, as part of ordinary operations and concluded at normal market conditions.

- financial receivables, relating to short and long-term financial receivables from Termica Colleferro S.p.A.;
- trade payables, relating to costs incurred as part of ordinary operations and relating to transactions concluded at normal market conditions; in addition, with reference to the company Europropulsion S.A., costs incurred as a result of transactions within ordinary operations and concluded at normal market conditions are included;
- financial payables, relating to the short-term inter-company financial payables of Avio S.p.A. to Europropulsion S.A.;
- revenues, relating to the transactions described previously with regards to trade receivables;
- operating costs, relating to the transactions described previously with regards to trade payables;
- financial income, related to interest on the financial receivables previously stated.

The bank guarantees to the Sitab Consortium in liquidation concern supplies in previous years and, together with the Consortium, are expected to be withdrawn shortly.

#### *Transactions with other related parties*

Group transactions with other related parties concern the following operations:

- trade receivables, relating to revenues from the sale of Group core business products, as part of ordinary operations and concluded at normal market conditions.
- revenues, relating to the transactions described previously with regards to trade receivables.

## 8. LIST OF GROUP COMPANIES AT JUNE 30, 2019

The following table presents the key details of Avio Group investees at June 30, 2019:

<b>Companies included in the consolidation scope at June 30, 2019</b>	<b>Holding</b>
<b>Parent</b>	
Avio S.p.A.	-
<b>Companies consolidated by the line-by-line method</b>	
Spacelab S.p.A.	70%
Regulus S.A.	60%
SE.CO.SV.IM. S.r.l.	100% (*)
Avio Guyana S.A.S.	100%
ASPropulsion International B.V.	100%
Avio India Aviation Aerospace Private Limited (**)	100% (***)
<b>Jointly controlled companies, measured at equity</b>	
Europropulsion S.A.	50%
<b>Associates, measured at equity</b>	
Termica Colleferro S.p.A.	40%

(\*) Holding through ASPropulsion International B.V.

(\*\*) The company is in liquidation. No financial commitments are expected for the Group related to the liquidation.

(\*\*\*) Investment held in part directly by Avio S.p.A. (95%) and in part through ASPropulsion International B.V. (5%).

## 9. DISCLOSURE ON PUBLIC GRANTS AS PER ARTICLE 1, PARAGRAPHS 125-129, OF LAW NO. 124/2017

The following information is provided in accordance with the public disclosure requirements imposed by public grant legislation: This disclosure concerns, as required by the regulation, disbursements accruing in H1 2019:

### Grants under Law No. 808 of December 24, 1985 "Incentives for the development and improved competitiveness of the aerospace sector industries"

Receiving company	Disbursing PA	Project	Years_costs Project	Loans issued in the period (M€) (€ /000)	Collection date	Ministry for Economic Development (M€) (€ /000)
AVIO SPA	Ministry for Economic Development	80-ton solid propellant engine - P80	2006-2008	-	-	1.16
AVIO SPA	Ministry for Economic Development	80-ton solid propellant engine - P80	2009	-	-	0.77
AVIO SPA	Ministry for Economic Development	80-ton solid propellant engine - P80	2010	-	-	0.44
AVIO SPA	Ministry for Economic Development	Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal insulation formulated and produced within Italy for filament winding applied to 40T space engines	2009	-	-	0.44
AVIO SPA	Ministry for Economic Development	Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal insulation formulated and produced within Italy for filament winding applied to 40T space engines	2010	-	-	0.77
AVIO SPA	Ministry for Economic Development	Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal insulation formulated and produced within Italy for filament winding applied to 40T space engines	2011-2012	-	-	1.14
AVIO SPA	Ministry for Economic Development	Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal	2012-2013	-	-	2.29

		insulation formulated and produced within Italy for filament winding applied to 40T space engines				
AVIO SPA	Ministry for Economic Development	Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal insulation formulated and produced within Italy for filament winding applied to 40T space engines	2014-2015	-	-	2.23
AVIO SPA	Ministry for Economic Development	LOX/LCH technology demonstrator for the first stage of the Vega E launcher	2014-2016	-	-	1.164
				-		<b>10.40</b>

“Receivables from the Economic Development Ministry” for disbursements in accordance with Law 808/85, amounting to Euro 10.40 million, refer to the nominal value of the grants to be issued by the Economic Development Ministry. The amounts by Project are broken down as follows: Euro 2.37 million for the “80 ton solid propellant motor - P80” project; Euro 6.87 million for the “Innovative, strategic carbon epoxy prepreg materials and modified elastomeric thermal insulation formulated and produced within Italy for filament winding applied to 40T space engines” project; Euro 1.16 million for the “LOX/LCH demonstrated technology for the third stage of the Vega E launcher” project.

These receivables are recorded in the accounts at the value resulting from the application of the amortised cost method, calculated utilising the effective interest rate, and are increased due to the effect of the accumulated amortisation of the difference between the initial value and the actual cash amounts and booked in the accounts under “Financial income”.

### Other grants

Receiving company	Disbursing PA	Project	Years_costs Project	Loans issued (€M)	Collection date	Nominal receivable to be collected (M€)
				(€ /000)		(€ /000)
AVIO SPA	European community	SpaceCarbon	NA	-	-	NA
AVIO SPA	Ministry for University, Education and Research	P R A D E	NA	-	-	NA
AVIO SPA	European community	GRAIL	NA	-	-	NA
						<b>NA</b>

As reported in the Explanatory Notes in the tax receivable paragraphs, the Avio Group has recognised with regards to financial years 2018 and 2017, the Research and development tax credit permitted under Article 3 of Legislative Decree No. 145 of December 23, 2013 and subsequent amendments.

## 10. SUBSEQUENT EVENTS

### Business

#### **Vega**

On July 11, 2019, approx. two minutes after the launch of the Vega VV15 launcher (hereafter “VV15”), an anomaly occurred shortly after the second stage ignited (Zefiro 23), which led to the premature conclusion of the mission for the “Falcon Eye 1” satellite commissioned to Arianespace Société par actions simplifiée (“Arianespace”) by the United Arab Emirates Government.

As set out in the contractual agreements governing relations between Avio, as Prime Contractor of the Vega launcher and Arianespace, as Launch Service Provider and Launch Operator, on the same date, the ESA and Arianespace appointed an Independent Investigatory Commission with the duty of establishing the possible causes of the anomaly.

According to the above-stated contractual agreements, from the point of the launcher’s lift-off, the responsibility for the damage to third parties deriving from launcher malfunction is transferred to Arianespace, whatever the cause. Therefore, Arianespace shall exclusively be responsible for any damage from defects and/or the malfunctioning of products provided by Avio and/or by its sub-suppliers caused during the flight of the launchers as the launch operator and - where applicable - the French government.

In the proven case of Avio’s responsibility for the pre-existence of any defects, not indicated on acceptance of the launcher by Arianespace, Avio may be called to reimburse Arianespace for costs incurred for consequent analysis works, where not reimbursed by the ESA.

With regards to the anomaly on the VV15, on September 5, 2019, the Independent Investigatory Commission issued its conclusions on the possible causes, identifying that most probable as a thermal-structural problem in the area of the front cap of the Zefiro 23 motor and indicating the corrective measures which should be taken, expressing their recommendations to permit the restart of Vega launches by the first quarter of 2020, in compliance with the applicable safety and reliability requirements.

Avio is currently working on implementing the corrective measures according to the timeframe indicated by the Commission in order to return to flights in the first quarter of 2020.

On July 12, 2019, the Inter-ministerial Committee for Space and Aerospace policies, together with the Italian Space Agency, guaranteed its full support to Avio in a statement issued by the President of the Council of Ministers in terms of providing continuity to its Space access activities, which are testament to the country’s strategic capacity.

As the effect of the execution of the Commission's proposed audit plan based on tests and analyses is yet to be evaluated, as well as the corrective measures proposed by the Commission, any possible financial impacts as a result of this anomaly may not yet be quantified in terms of possible charges and the respective coverage provided by the existing agreements with Arianespace and with the ESA.

## **Ariane**

On August 6, 2019, the Ariane 5 (VA 249) was successfully launched, putting into orbit two long-term client telecommunications satellites: Intelsat 39, for the operator Intelsat and the EDRS-C satellite, based on a public-private partnership between the European Space Agency (ESA) and Airbus.

## **Other significant events**

### **VAT receivable collections**

Subsequent to period-end, following the reimbursement applications presented by the parent company Avio S.p.A. to the Tax Agency, in July and August 2019 VAT receivables were collected for a total of Euro 28.0 million, in addition to interest of Euro 231 thousand.

### **Settlement with FCA Partecipazioni S.p.A. regarding environmental charges**

As previously reported, under the "Agreement of Purchase and Sale" signed in 2003, FCA Partecipazioni S.p.A. was required to indemnify the Avio Group for reclamation activities, the charges to be incurred for environmental restoration, in addition to the post-operative management and maintenance of a number of areas located in the Colleferro industrial district.

Following years of collaboration between the parties in examining the indemnifiable environmental charges upon FCA Partecipazioni S.p.A. in accordance with the above-mentioned 2003 contract and the payment of indemnities to the Avio Group, in June 2017 FCA Partecipazioni S.p.A. communicated to the Avio Group the lapsing, according to FCA Partecipazioni S.p.A., of the applicability of the contractual obligations as a result of the alleged "change of control" through the Space2 S.p.A./Avio S.p.A. corporate transaction at the beginning of 2017, which led to the stock market listing of Avio S.p.A..

In July 2017, the Avio Group initiated an arbitration procedure with FCA Partecipazioni S.p.A. in order to declare the continuity of the above-sated contractual guarantee.

Within the arbitration process, also on the invitation of the Board of Arbitrators, the parties began negotiations to reach a settlement.

In this regard, on August 2, 2019, the parties agreed a settlement according to which FCA Partecipazioni S.p.A. committed to recognise to the Avio Group a total amount of Euro 19.9 million, of which Euro 11.3 million for reclamation activities and environmental restoration to be paid in the 2019-2023 period and Euro 8.6 million for post-operative management and maintenance to be paid in the 2019-2048 period, against the lapsing of the contractual guarantees which the company provided in the past to the Avio Group.

Simultaneous to the signing of the settlement, on August 2, 2019 FCA Partecipazioni S.p.A. paid the Avio Group approx. Euro 4.0 million as a portion of the overall settlement.

For further details, reference should be made to the “Legal and tax disputes and contingent liabilities” section of the Explanatory Notes.

### **Purchase of treasury shares**

The Board of Directors of Avio S.p.A on August 2, 2019., in execution of that approved by the Shareholders’ Meeting of April 26, 2019, launched a treasury share buy-back programme.

The programme shall be executed through purchases by an appointed intermediary, Equita SIM S.p.A., which will fully independently adopt decisions with regards to purchases, also in terms of their timing, in accordance with the applicable regulation and the above-stated Shareholders’ Meeting regulation.

In line with that set out by the Shareholders’ Meeting motion, the treasury share buy-back programme is undertaken to:

- a) efficiently utilize liquidity generated by company operations, also through medium-long-term investment in treasury shares;
- b) offer shareholders an additional tool to monetize their investment;
- c) use treasury shares as consideration in corporate actions, to receive funds for acquisition projects and/or in exchanges of shareholdings, or for other uses deemed of interest to the Company in financial, managerial and/or strategic terms;

The programme concerns the purchase of treasury shares for an amount not greater than Euro 5 million and up to a maximum of Euro 1,000,000.

The purchases shall be made on the MTA market (STAR segment) in accordance with Article 144-*bis*, paragraph 1, letter b) of Consob Regulation 11971/1999 and the other applicable provisions and in a manner which ensures compliance with the requirement for the equal treatment of shareholders as per Article 132 of the CFA, in addition to the operating means established under the Borsa Italiana S.p.A. organisation and management regulations.

The programme shall be executed, within the above share value and quantity limits, until October 28, 2020, i.e. within the 18-month deadline set by the authorisation granted by the Shareholders' Meeting of April 29, 2019, subject to its withdrawal.

On September 12, 2019, following the purchases made, Avio S.p.A. holds 45.050 treasury shares, equal to 0,17% of the number of shares comprising the share capital.

### **Incorporation of the company Avio France S.A.S.**

On August 19, 2019, the company Avio France S.A.S., with registered office in Paris, was incorporated. The company shall engage in launch system engineering operations in support of Arianespace and the ESA in the distribution of VEGA and VEGA-C launchers.

\* \* \*

September 12, 2019

for the Board of Directors  
The Chief Executive Officer and General Manager  
*Giulio Ranzo*

## REPORT ON REVIEW OF THE HALF-YEARLY CONSOLIDATED FINANCIAL STATEMENTS

**To the Shareholders of  
Avio S.p.A.**

### Introduction

We have reviewed the accompanying half-yearly consolidated financial statements of Avio S.p.A. and subsidiaries (the "Avio Group"), which comprise the statement of financial position as of June 30, 2019 and the income statement, statement of comprehensive income, statement of changes in equity and cash flow statement for the six month period then ended, and a summary of significant accounting policies and other explanatory notes. The Directors are responsible for the preparation of the half-yearly consolidated financial statements in accordance with the International Accounting Standard applicable to the interim financial reporting (IAS 34) as adopted by the European Union. Our responsibility is to express a conclusion on the half-yearly consolidated financial statements based on our review.

### Scope of Review

We conducted our review in accordance with the criteria recommended by the Italian Regulatory Commission for Companies and the Stock Exchange ("Consob") for the review of the half-yearly financial statements under Resolution n° 10867 of July 31, 1997. A review of half-yearly consolidated financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (ISA Italia) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

### Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying half-yearly consolidated financial statements of the Avio Group as at June 30, 2019 are not prepared, in all material respects, in accordance with the International Accounting Standard applicable to the interim financial reporting (IAS 34) as adopted by the European Union.

DELOITTE & TOUCHE S.p.A.

Signed by  
**Franco Chiavazza**  
Partner

Turin, Italy  
September 13, 2019

*This report has been translated into the English language solely for the convenience of international readers.*

**Declaration of the Condensed Consolidated Financial Statements as per Article 81-ter of Consob Regulation No. 11971 of May 14, 1999 and subsequent amendments and supplements**

1. The undersigned Giulio Ranzo and Alessandro Agosti, respectively CEO and Executive Officer for Financial Reporting of Avio S.p.A. declare, also in consideration of Article 154-bis, paragraphs 3 and 4, of Legislative Decree No. 58 of February 24, 1998:
  - the consistency in relation to the characteristics of the company;
  - the effective application of the administrative and accounting procedures for the drawing up of the condensed consolidated half-year financial statements in the period between January 1 and June 30, 2019.
2. Verification of the adequacy and effective application of the administrative and accounting procedures for the preparation of the condensed consolidated half-year financial statements at June 30, 2019 was undertaken referring to the criteria established in the internationally accepted “Internal Controls – Integrated Framework” model.
3. We also declare that:
  - 3.1 The condensed interim consolidated financial statements:
    - a) were prepared in accordance with international accounting standards, recognised in the European Union pursuant to Regulation (EC) No. 1606/2002 of the European Parliament and Council of July 19, 2002;
    - b) correspond to the underlying accounting documents and records;
    - c) provide a true and fair view of the equity, economic and financial position of the issuer and of the other companies in the consolidation scope.
  - 3.2 The Directors’ Report includes a reliable analysis of the significant events in the first six months of the year and their impact on the condensed consolidated half-year financial statements, with a description of the principal risks and uncertainties to which the Group is exposed, in addition to the subsequent events and outlook. It also contains a reliable analysis of the significant transactions with related parties.

Date: September 12, 2019

Avio S.p.A.

Giulio Ranzo  
Chief Executive Officer  
(Signed)

Alessandro Agosti  
Executive Officer for Financial Reporting  
(Signed)