

# Annual Report 2016

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**DFS** Deutsche Flugsicherung



## The business year 2016

This is a courtesy translation of the German original of the DFS Annual Report 2016. It is provided solely for your information and for the convenience of English-speaking readers. In the event that the English and German versions permit different interpretations, the German text shall prevail.

## Report of the Supervisory Board

### Type and scope of review and consultation

In the business year 2016, the Supervisory Board performed its functions as prescribed by law and the Articles of Association. It regularly advised and monitored the Board of Managing Directors and was involved in decisions of fundamental importance to the company.

In fulfilling its tasks, the Supervisory Board was supported by its three committees: a personnel, an audit and a project committee. The committees thoroughly discussed the resolutions to be adopted and prepared recommendations for the decisions to be taken at the plenary meetings. An additional committee was formed for the commercial business to support its development within the DFS Group.

In the business year 2016, there was one change to the composition of the Supervisory Board. Mr Michael Odenwald, the former Chairperson, left the Supervisory Board on 21 April 2016. He was succeeded by Ms Antje Geese as a representative on the Shareholder's side on 22 April 2016. Dr Martina Hinricher was elected as the new Chairperson of the Supervisory Board with effect from 22 April 2016.

The Board of Managing Directors reported to the Supervisory Board on the basis of quarterly reports in accordance with Section 90 of the German Stock Corporation Law (AktG). The Supervisory Board was informed on important issues on an ad hoc basis. The Board of Managing Directors reported to the Supervisory Board in due form.

During the business year 2016, the Supervisory Board held four ordinary meetings to discuss the situation and development of the company. There was one extraordinary meeting to decide on the tender of the UK subsidiary Air Navigation Solutions Ltd. for the provision of air navigation services at Edinburgh Airport.

The Supervisory Board specifically dealt with the following topics at its four ordinary meetings:

- the 2015 annual financial statements and consolidated financial statements, the management report, and the Group management report and the audit report on the 2015 annual financial statements and consolidated financial statements,
- the 2017 economic plan, with the associated investment and financial plan,
- the corporate control in the DFS Group,
- the bundling of the commercial business in DFS Aviation Services GmbH

and

- the renewal of the appointment of Dr Michael Hann as Managing Director Human Resources and Labour Director for an additional five years from 1 September 2017.

In addition, the Supervisory Board approved the investments

- in the air traffic management system iCAS at the Munich Control Centre and
- in the renewal of the ILS systems.

### **Result of the review**

The Supervisory Board observed that the course of consolidation continued to be pursued in the year under review. The costs were further reduced for another year in succession. In other areas, too, the five-point programme proved to be successful.

On the basis of the audit report prepared by the auditors Roever Broenner Susat Mazars GmbH & Co. KG, the Supervisory Board discussed the 2016 annual financial statements and consolidated financial statements and the management report including conclusions in accordance with Section 53 of the German Budgetary Principles Act (HGrG), including the Group management report. The audit committee met for discussions in advance. The comprehensive control and risk management system established in the company was included in the audit. The auditors were present at the discussions. They gave an account of the key results of their report and were available to answer questions. The Supervisory Board found no exceptions to be taken against the audit report and the auditors' findings. It proposed that the shareholder meeting approve the annual financial statements and the consolidated financial statements. The Supervisory Board reviewed the proposal of the Board of Managing Directors on the use of profits and agreed to it.

The Supervisory Board would like to thank the Board of Managing Directors for its dedication to the company and the successes achieved in 2016. Moreover, without the commitment shown by all members of staff and the staff councils none of these successes would have been possible.

The Supervisory Board



Dr Martina Hinricher  
Chairperson



Dr Martina Hinricher

## Members of the Supervisory Board

**Chairperson until 21 April 2016**

**Michael Odenwald**

State Secretary  
Federal Ministry of Transport  
and Digital Infrastructure  
Member until 21 April 2016

**Dr Angelika Kreppein**

*Regierungsdirektorin*  
Federal Ministry of Finance

**Chairperson from 22 April 2016**

**Dr Martina Hinricher**

*Ministerialdirektorin*  
Federal Ministry of Transport  
and Digital Infrastructure

**Dr Edeltraud Leibrock**

Consultant

**Deputy Chairperson**

**Markus Siebers**

Air traffic controller  
DFS Deutsche Flugsicherung GmbH

**Volker Möller**

Air traffic controller  
DFS Deutsche Flugsicherung GmbH

**Carmen von Bornstaedt-Radbruch**

*Ministerialrätin*  
Federal Ministry of Defence

**Peter Schaaf**

Chairperson Central Staff Council  
Air traffic controller  
DFS Deutsche Flugsicherung GmbH

**Antje Geese**

*Ministerialdirigentin*  
Federal Ministry of Transport  
and Digital Infrastructure  
Member since 22 April 2016

**Andrea Wächter**

Head of Hamburg Tower  
DFS Deutsche Flugsicherung GmbH

**Catja Gräber**

Senior expert data communication service  
DFS Deutsche Flugsicherung GmbH

**Dirk Wendland**

Systems engineer  
DFS Deutsche Flugsicherung GmbH

**Andreas Hoppe**

Colonel (G.S.)  
Federal Ministry of Defence

Correct at 31 December 2016

## Members of the Advisory Council

### **Norbert Barthle**

Chairperson  
Member of the German Bundestag  
Parliamentary State Secretary  
Federal Ministry of Transport  
and Digital Infrastructure

### **Andreas Berger**

Member of the Board of Management  
Allianz Global Corporate & Specialty SE

### **Michael Eggenschwiler**

Vice President  
German Airports Association (ADV)  
Chief Executive Officer  
Flughafen Hamburg GmbH

### **Dirk Fischer**

Member of the German Bundestag

### **Karl Ulrich Garnadt**

Member of the Executive Board  
Deutsche Lufthansa AG

### **Prof Dr Elmar Giemulla**

President  
Aircraft Owners and Pilots Association  
(AOPA Germany)

### **Winfried Hermann**

Minister for Transport and Infrastructure  
Ministry of Transport and Infrastructure  
Baden-Württemberg

### **Michael Hoppe**

Chairperson  
Board of Airline Representatives in  
Germany e.V. (BARIG)

### **Ulrich Lange**

Member of the German Bundestag

### **Kirsten Lühmann**

Member of the German Bundestag

### **Karl Müllner**

Lieutenant General  
Chief of Staff, Air Force  
German Air Force Command

### **Prof Dr Bernd Sanner**

Medical Director  
AGAPLESION BETHESDA KRANKENHAUS  
WUPPERTAL gGmbH

### **Dr Stefan Schulte**

Chairperson of the Executive Board  
Fraport AG

### **Wolfgang Stertenbrink**

Chairperson of the Supervisory Boards  
ALTE LEIPZIGER – HALLESCHE Group

### **Ralf Teckentrup**

President  
German Airline Association (BDF)  
CEO of the Executive Board  
Condor Flugdienst GmbH

### **Klaus Thiemann**

### **Daniel Weder**

Chief Executive Officer  
skyguide swiss air navigation services ltd.

Correct at 31 December 2016

**Group management report**

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**Consolidated financial statements**

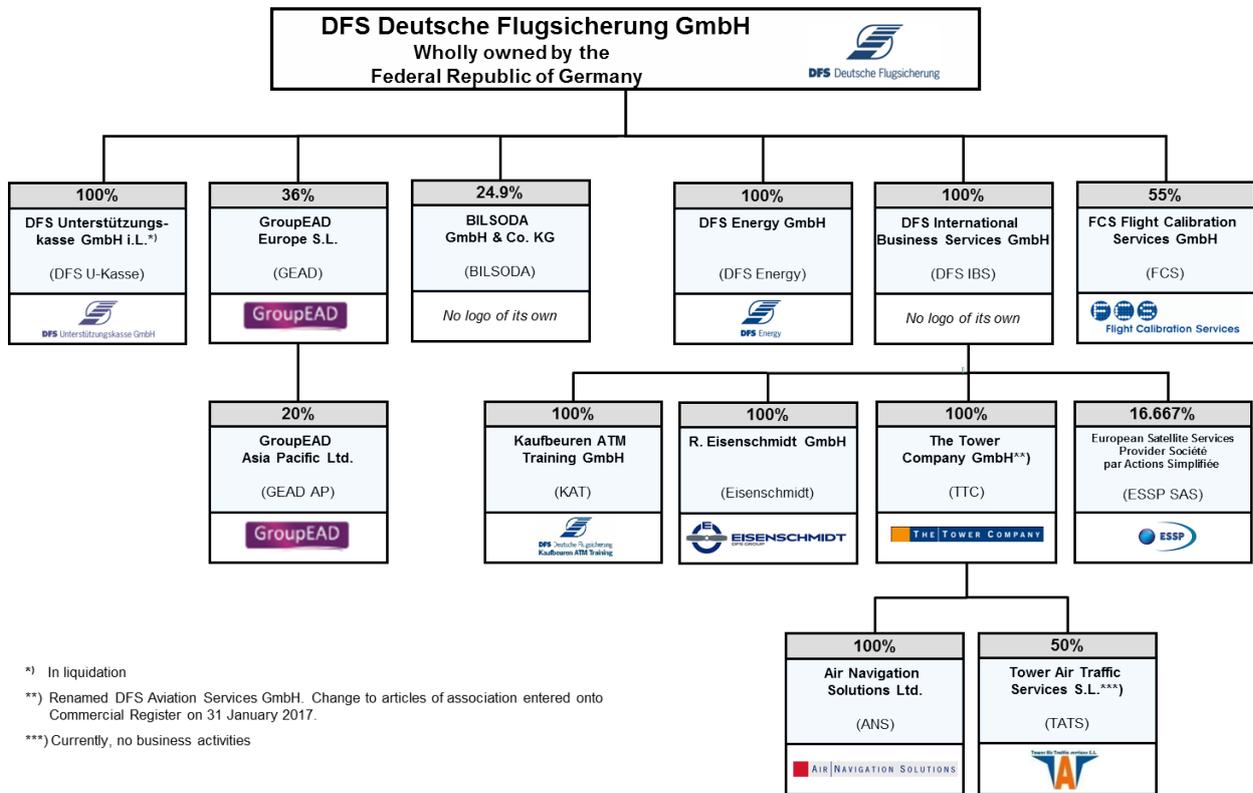
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# Group management report

*for the business year 2016*

# 1 Group organising principles

## 1.1 Structure of the Group



\*) In liquidation

\*\*) Renamed DFS Aviation Services GmbH. Change to articles of association entered onto Commercial Register on 31 January 2017.

\*\*\*) Currently, no business activities

As at 31 December 2016

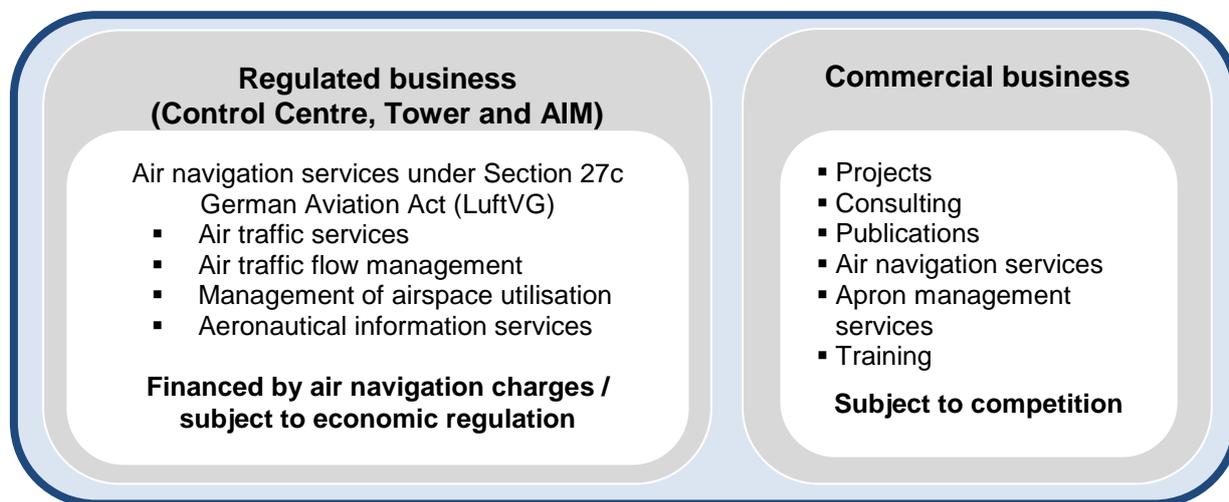
DFS manages the Group as the ultimate parent company and carries out operational activities itself. The subsidiaries and investments supplement the portfolio of services offered by the Group and operate in areas closely related to the aviation industry.

From 2016, DFS will present a consolidated set of financial statements that includes six subsidiaries. The results and financial position will continue to be primarily determined by the business activities of DFS. Information on the scope of consolidation can be found in Note 3. The prior-year values were adjusted accordingly. Note 4.2 contains a reconciliation. The comparability with the values prior to 2015 is limited as these refer exclusively to DFS.

## 1.2 Business activities

### 1.2.1 Overview

The DFS Group, which employs approximately 5,700 operational and administrative staff (5,538 at DFS), ensures the safety of German airspace and also offers additional products and services on the free market (commercial business).



The regulated main business – providing air navigation services – is defined by the tasks set out in Section 27c of the German Aviation Act (LuftVG). DFS provides air traffic services as a sovereign function (as a company entrusted with State functions). For this purpose, it develops and operates air traffic services (ATS) systems as well as communications, surveillance and navigation systems. DFS operates control centres in Langen, Bremen, Karlsruhe and Munich as well as 16 control towers at Germany's designated international airports and, until the end of 2016, a unit within the Maastricht Upper Area Control Centre of EUROCONTROL. DFS ensures that approximately three million flights under instrument flight rules (IFR) reach their destinations safely and on time each year. DFS levies air navigation charges for this.

### 1.2.2 Regulated business

#### *Control Centre*

The Control Centre division at DFS is in charge of air traffic control for terminal (approach control service) and en-route services (area control service), including all ATS systems as well as the flight information service and the alerting service.

#### *Tower*

The Tower division at DFS controls air traffic at Germany's designated international airports (aerodrome control service), including all ATS systems as well as the flight information service and the alerting service.

#### *Aeronautical Information Management (AIM)*

The AIM division at DFS provides its customers with all relevant aeronautical information and aeronautical information services for the safe conduct of flights. AIM collects, prepares and publishes aeronautical data, such as flight plans and NOTAM, and publishes numerous aeronautical publications and products, such as the Aeronautical Information Publication (AIP).

### 1.2.3 Commercial business

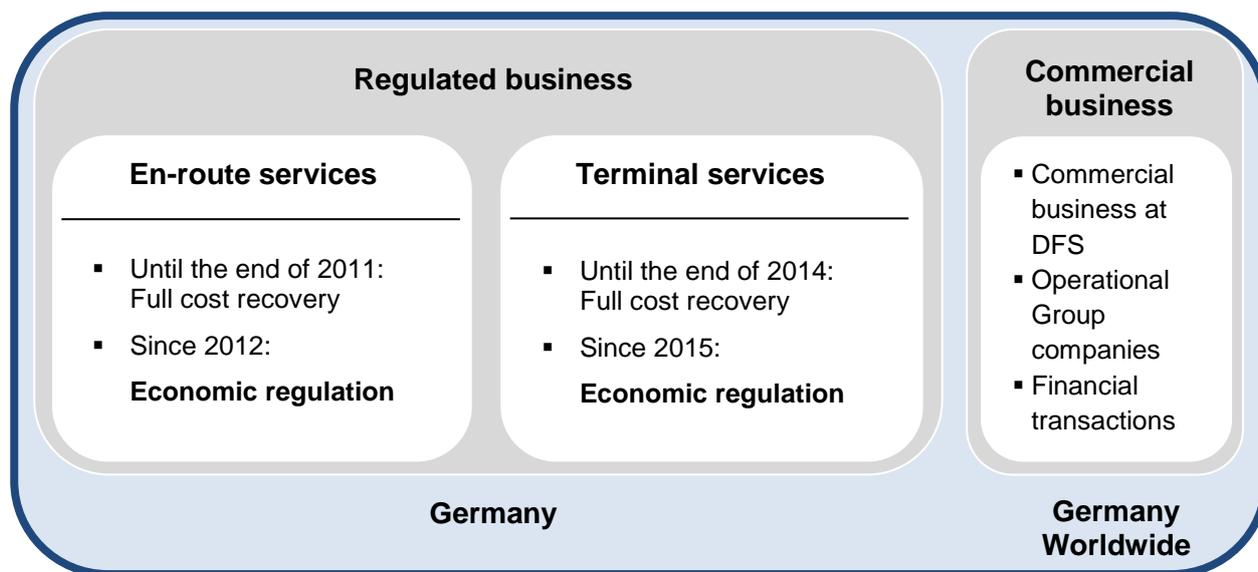
The subsidiaries and investments support and enhance the portfolio of services offered by the Group.

- The marketing of consulting services on a commercial basis, such as technical consulting, management consulting and training courses. It also involves marketing products and projects related to air navigation services on a commercial basis. (These activities fell under the responsibility of the Aeronautical Solutions division of DFS until the end of 2016.)
- The development, provision and conduct of air navigation services at nine regional airports in Germany at the moment (DFS Aviation Services, formerly TTC) and at London Gatwick Airport (ANS) as well as of other services, especially apron management services, coordination of ground handling and meteorological observations on the free market.
- Flight inspection of navigation and surveillance infrastructure, the validation of procedures as well as services, consulting and preparatory work of all kinds in connection with the conduct of flight inspections (FCS).
- Operation of a database of aeronautical information for the provision of aeronautical data and associated services (GEAD).
- Production and marketing of aeronautical charts and publications as well as other aeronautical information, including in electronic form. This encompasses the marketing of technical accessories for the preparation, planning and conduct of flights (Eisenschmidt).
- Training of military air traffic personnel based on military standards and of personnel in military air navigation services, their further training and associated ancillary services (KAT).
- Development and operation of a European satellite-based navigation system (EGNOS) to improve the signals of the US global positioning system (ESSP SAS).
- Management, holding, administration and financing investments in domestic and foreign companies that promote the development, provision and conduct of services on the air transport market and their further development (DFS IBS).
- Generation and provision of energy for own use at DFS and sale to a fixed group of external customers (DFS Energy).
- Construction, rental, operation and administration of a parking structure for DFS and Airbus (BILSODA).

## 1.3 Operating segments

### 1.3.1 Overview

The DFS Group divides its business activities into two segments. One segment – the regulated business – is financed by air navigation charges, while the other segment – the commercial business – competes for business on the free market. The segment financed by air navigation charges is the focus of the main business in Germany. It is divided into en-route services and terminal services. These fall under the responsibility of the Control Centre and Tower divisions and their technical support units.



### 1.3.2 Regulated business

#### *En-route services*

Since 1 January 2012, the European Commission has regulated en-route services by means of a performance scheme for air navigation services and network functions (Regulation (EU) No 390/2013 laying down a performance scheme for air navigation services and network functions) and the introduction of a common charging scheme (Regulation (EU) No 391/2013 laying down a common charging scheme for air navigation services). The focus is on European and national requirements covering safety, environment, capacity and cost-efficiency. As the national supervisory authority, the Federal Supervisory Authority for Air Navigation Services (BAF) determines the German contribution to the performance plan at the level of the Functional Airspace Block Europe Central (FABEC) (see section 7.2.1). The charges are laid down by EUROCONTROL on the basis of a decision of the Enlarged Commission in accordance with the German Ordinance on Route Charges of the Air Navigation Services (FSStrKV).

#### *Terminal services*

Terminal services have been subject to economic regulation since 2015. As had been the case previously, the terminal charges are set by means of a statutory instrument of the Federal Government (FSAAKV).

### 1.3.3 Commercial business

This segment covers all the activities that are not individually reportable as they fall below the quantitative thresholds. These activities primarily relate to commercial services, operating subsidiaries and financial transactions that do not impact air navigation charges. Commercial services are offered globally. In contrast to the regulated business, the commercial business

is not subject to economic regulation. Intersegment transactions are conducted at arm's length conditions and prices (see Note 32).

**1.4 Legal framework and management organisation**

In 1993, DFS was entrusted with the tasks of the Federal Administration of Air Navigation Services (BFS) by the Federal Republic of Germany. The Headquarters of DFS are located in Langen near Frankfurt at: Am DFS-Campus 10, 63225 Langen, Germany. The company is registered under HRB 34977 on the Commercial Register at the Local Court in Offenbach.

The object of the company is the development, provision and execution of the air navigation services delegated to the company by the Federal Ministry of Transport and Digital Infrastructure (BMVI). The company can provide air navigation services in Europe as well as carry out related sideline activities in Germany and abroad.

The sole shareholder is the Federal Republic of Germany.

The distribution of responsibilities among the Managing Directors of DFS forms the basis for the management organisation (as at 1 January 2015).

Distribution of responsibilities among the DFS Managing Directors		
Chairman and CEO	Managing Director Operations	Managing Director Human Resources – Labour Director –
<ul style="list-style-type: none"> <li>• Strategy, organisation, international affairs</li> <li>• Institutional and legal affairs, insurance, risk management, compliance including export control</li> <li>• Safety and security management systems</li> <li>• Internal audit, quality management</li> <li>• Corporate communications, public relations, environmental issues</li> <li>• Finance, including taxes and charges</li> <li>• General administration</li> <li>• Procurement</li> <li>• Consulting services and system deliveries</li> <li>• Military affairs</li> </ul>	<ul style="list-style-type: none"> <li>• Air traffic services</li> <li>• Airspace management</li> <li>• Air traffic flow management</li> <li>• Aeronautical information service</li> <li>• Communication, navigation and surveillance services</li> <li>• Product/system management for technical systems, logistics</li> <li>• Research and development</li> <li>• Technical and infrastructural facility management</li> <li>• Development of ATM systems and business and administrative information technology</li> </ul>	<ul style="list-style-type: none"> <li>• Human resources strategy</li> <li>• Collective bargaining (strategies and policies)</li> <li>• Staff planning, human resources management</li> <li>• Human resources development, initial and continuation training, Academy</li> <li>• Payroll accounting</li> <li>• Compensation and incentive systems</li> <li>• Occupational pensions</li> <li>• Social and health management</li> <li>• Industrial safety, accident prevention</li> <li>• Labour law, collective bargaining law</li> </ul>

The Board of Managing Directors is supported by an Executive Committee, which is made up of the Managing Directors and the members of the executive management level (division directors). At its weekly meetings, the Executive Committee discusses important corporate issues and exchanges information.

The Supervisory Board of DFS comprises 12 members, six appointed by the Shareholder and six elected by the employees (see Note 44.2 for the composition of the Supervisory Board).

The subsidiaries active in the commercial business are managed through the holding company DFS IBS. It holds, manages, administers and finances its operating investments by means of intercompany (Group) contracts, such as control agreements, profit and loss transfer agreements and cash pool agreements. It also limits the liability of DFS to the carrying amount of the investment of DFS IBS. The company implements the structural and operational rules laid down by Group management by means of shareholder resolutions, employees of DFS taking on supervisory board membership and the contractual commitments set out in intercompany (Group) contracts. DFS executives directly manage DFS IBS in addition to their normal duties.

In reaction to the continuing consolidation in the aviation industry and the resulting diversified external conditions, the Board of Managing Directors has initiated further measures to adapt and realign the structure of the Group.

## **1.5 Strategies and objectives**

### **1.5 Strategic direction**

To fulfil its statutory obligation, DFS is committed to delivering an outstanding level of performance at a first-class, uncompromising safety level. The services the company provides are tailored to the differing needs of its customers and are provided in a sustainable manner (see declaration of conformity with The Sustainability Code at [www.deutscher-nachhaltigkeitskodex.de](http://www.deutscher-nachhaltigkeitskodex.de); in German only). As a recognised provider of air navigation services for complex airspaces and airports, it contributes to enhancing the performance of the air transport system, while carefully taking noise abatement needs into account, and focuses on the four strategic dimensions of corporate culture, advanced technology, quality leadership and relative cost leadership.

#### *Corporate culture*

DFS offers challenging, attractive and family-friendly jobs for aviation enthusiasts and innovative people from around the world seeking the opportunity to shape the future of air transport. Our intensive work in the HR area is strengthening both the reputation of the company as well as the feeling of togetherness among active, former and future employees of the company (see section 4).

#### *Technology*

The company researches, develops and employs innovative technologies. It strives to achieve an edge in performance and knowledge over other air navigation service providers (see section 7.2.1 RTC and drones as examples).

#### *Quality leadership*

DFS aims to rank in the leading position in Europe in the performance areas of safety, capacity and environment.

#### *Relative cost leadership*

Economic regulation exerts a material influence on the demand for the products and services as well as on costs. DFS therefore supports the appropriate further development of national and European regulation and is optimising its costs (relative cost leadership) to achieve a top ranking among ANSPs that manage a comparable level of complexity in the central performance area of cost efficiency (costs per controlled hour of flight).

## 1.5.2 Five-point programme

The Board of Managing Directors is positioning the Group in line with its strategic direction and defines the material objectives of the Group. It has successfully set up a five-point programme, adapted strategic guidelines and implemented numerous projects and measures in a targeted manner. The Board of Managing Directors constantly reviews the progress of the programme and its compatibility with the market environment.

### *Air navigation services in Europe*

DFS remains an independent air navigation service provider. It cooperates with its European partners in a reliable and predictable manner while actively shaping the European consolidation and concentration process as a strong air navigation service provider. The company supports suitable and appropriate regulations to implement the SES objectives.

### *Air traffic services*

DFS is optimising airspace structures and operating procedures. It is harmonising ATS systems across Europe and introducing flexibility into the deployment of staff. Innovative and value-producing technological solutions, concepts and knowledge deliver a competitive edge. In its core business of en-route control services, the company is concentrating on one ATS system line (iCAS), which allows sectorless air traffic management. The provision of aerodrome control services is being modernised at selected aerodromes by means of the remote tower concept. This means the provision of these services is no longer bound to a particular physical location. The quality of all services remains exemplary in Europe and is regularly benchmarked against the highest standards.

### *Increase in productivity*

Since 2013, DFS has been pursuing a constant reduction in annual operating costs of approx. 1.5 percent per year for the second reference period (until the end of 2019). The company, in close dialogue with the employees, staff councils and trade unions affected, is raising staff flexibility, avoiding a further increase in headcount and using natural staff turnover to reduce staff numbers. All measures are being introduced in a socially compatible manner. Compulsory redundancies are not planned.

### *Human resources*

DFS is developing management structures that are fit for the future and is strengthening its dependable and trust-based working relationships with its staff, executives and the staff representatives.

### *Commercial business*

DFS sees particular growth opportunities in the commercial business. It continuously analyses and boosts its competitiveness by systematically enhancing its own potential and acquiring new business.

The management of the Group has therefore decided to bundle its investments under the DFS IBS holding company to the extent legally possible and economically sensible. It transferred the operational responsibility for the training of military air traffic controllers to the newly formed KAT and, in 2017, is also transferring the former Aeronautical Solutions division to DFS Aviation Services (formerly TTC). It plans further expansion in those commercial business areas directly connected with air navigation services when opportunities arise in the market. Marketing and consulting activities are being expanded worldwide. This expansion is being supported by the set-up of representative offices close to customers in the promising markets of Southeast Asia and China.

### 1.5.3 Financial strategy

The financial strategy of DFS promotes the financial stability of the Group and is based on the following areas of focus:

#### *Good to very good credit rating*

Investors, business partners and employees should be able to continue to trust in the financial stability of the company and its subsidiaries. The company secures very good investment grade ratings in combination with its Shareholder (see section 2.4.3.1).

#### *Adequate liquidity*

Until mid-2017, the company will keep an operational reserve of €160 million to be able to react flexibly to changing conditions in its environment. Afterwards, because of the low interest rate environment, the company will maintain its room to act over the near term by issuing attractively priced commercial paper (short-term) and using demand deposits (short-term). This will allow the company to react flexibly to changes in its environment at all times. The very good investment rating requires adequate liquidity safeguarded by fund assets not protected against insolvency.

#### *Adequate capital structure and equity ratio*

Measures are being taken to continuously strengthen the capital structure and equity ratio. The negative impact on the equity as defined under International Financial Reporting Standards (IFRS) stemming from the revised standard on the recognition of long-term employee benefits (see Note 26.8) from the 2013 business year will be reduced step by step over the following three reference periods by being considered in the air navigation charges. DFS will continue to maintain the equity ratio shown in 'adjusted equity' (see Note 37) of around 23.8 percent and to progress towards a fully funded status for occupational pensions in a step-by-step manner.

#### *Low debt and unencumbered assets*

The infrastructure of the company is unencumbered and remains the property of the company. This creates a stable asset base that is in essence freely available.

#### *Ability to pay a dividend*

The Group is currently focusing on the provision of cost-effective air navigation services that ensure the capital provided by the Shareholder earns an adequate return. As a consequence of the strict regulation the core business is subject to, the Group lacks the classical long-term value-based indicators that would allow an alignment with long-term success and performance indicators. Nevertheless, the targeted expansion of the commercial business will gradually result in the increasing importance of market value for the company.

#### *Risk management system*

A modern risk management system supports the planning and control of financial risks in a consistent manner (see section 6.2.2.1).

## 1.6 Corporate management

When managing the Group, the Board of Managing Directors differentiates between the regulated business and the commercial business as required by law (*Transparenzrichtliniengesetz*, TranspRLG).

### *Regulated business*

The management of this business is aligned with the regulatory environment, the strategic dimensions and objectives, the requirements of the regulated business, the organisational structure as well as the five-point programme. The planning and control process identifies suitable measures, embeds them in the yearly rolling five-year plan and continuously monitors the divisions.

Performance and cost objectives as well as the internal requirements stemming from the five-point programme determine the demands placed on the individual divisions.

The achievement of these objectives and goals is measured by means of planned/actual comparisons which are carried out both on a regular basis and as needed (monthly, yearly and ad hoc). Achievement is monitored and reported at a corporate, divisional and product level. A system of financial indicators has been developed. These indicators are primarily based on IFRS and are used for budgeting. Requirements for operating costs are determined for the divisions and laid down using the following format:

#### **Operating costs**

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Staff costs

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+ Other operating expenses (e.g. material costs)

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+ Depreciation and amortisation

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**= Primary costs**

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+ Charges from internal cost allocation

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- Income from internal cost allocation

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**= Operating costs**

Planning and control also uses non-monetary indicators, such as the analysis of the traffic forecast, in addition to financial metrics on cost-efficiency. As regards non-monetary indicators, DFS constantly measures indicators for the key performance areas of safety, ATC capacity and the environment, such as infringements of separation, punctuality indicators and horizontal flight efficiency.

### *Commercial business*

The commercial business is materially influenced by the competitive environment in which it operates. Planning and control is carried out by setting targets for contribution margin and return on sales, whereby a positive contribution to earnings should be generated.

The operating subsidiaries should generate a profit before tax typical for the industry and transfer profits to the parent.

## 1.7 Research and development

German airspace demands a particularly well-performing air navigation service provider over the long term as this airspace is extremely busy and complex in international comparison. Technological and operational innovations represent an important means of managing the growing cost pressure, the increasing requirements as regards environmental sustainability and the rise in air traffic predicted in all forecasts for the medium term. These issues must all be managed while maintaining an unrestricted safety level. Therefore, DFS has been involved in international and national research projects for many years. It concentrates on applied research which leads to new products, procedures and working methods and follows the path from invention to innovation.

The most prominent project at international level is the SESAR project (Single European Sky Air Traffic Management Research), which encompasses all areas of air navigation services. It is organised within the scope of the SESAR Joint Undertaking, which DFS joined as an active member in June 2009, along with other leading organisations (air navigation service providers, airspace users, airports and manufacturers).

National activities focus on regional challenges, such as the optimisation of flight routes for overflights and the operation of busy airports, such as those in Frankfurt and Munich (including their arrival and departure procedures). DFS conducts real-time and fast-time simulations, tests new key technologies and subsequently develops the air traffic control software and suitable simulators. Within the scope of the German aeronautical research programme sponsored by the Federal Ministry for Economic Affairs and Energy (BMWi) with its technology line of funding for safe, efficient and sustainable aviation processes and flight guidance, DFS was able to once again position itself as consortium project manager. The goal is to work jointly with German partners from research and industry to improve the starting basis for later international activities.

DFS promotes the development of innovations. These currently include:

- The remote provision of aerodrome control services without a control tower on site (remote tower control, see section 7.2.1).
- Sectorless flying: a revolutionary concept that assigns aircraft in the entire controlled area to a particular air traffic controller and which promises more expeditious traffic handling with less effort.
- Surveillance systems that use all available sensors, such as various radar systems, multilateration and the position determined by the aircraft itself, to be able to track the aircraft seamlessly from gate to gate, on the ground as well as in the air.
- Support systems for air traffic controllers that reduce their workload by means of optimised information processing, especially through advice on conflict avoidance, and by means of step-by-step automation.
- The interoperability of European air traffic management systems that keeps pace with new developments – an important precondition for the SES initiative (Single European Sky) (see section 7.2.1).

A total of approximately €40 million and 274 staff posts were allocated to research and internally generated developments at DFS. The costs involved are partially offset by grant funding of approximately €25.6 million awarded from European research framework programmes, including SESAR and the German aeronautical research programme. In the future, the implementation of the R&D results will also take place within the scope of the SESAR Deployment Alliance (SDA) together with air navigation service providers (ANSPs), airlines and airport operators.

## 2 Report on economic position

In addition to the overall economic situation, political, legal and industry-specific factors have a fundamental influence on the development of air transport. The flourishing global economy is acting as a growth engine for the aviation industry. Nevertheless, there are factors which have a negative effect, such as political tensions; travel restrictions; negative regulatory, legal and tax issues; temporary geographic concentrations of illnesses as well as the fierce competition among airlines. The number of flights has a material influence on the business activities of the regulated business. It is also a major factor for the commercial business as DFS Aviation Services and ANS provide air navigation services at German regional airports as well as at the airports of Gatwick and Edinburgh in the United Kingdom. The aviation-related consultancy projects, technical support services and specialist publications reflect the general cycle of the aviation sector.

### 2.1 Overall economic situation

In 2016, the global economy grew less strongly (+2.9%) than the previous year because of the weak first half of the year. Growth in the US economy began to pick up pace in the second half of 2016.

In the euro area, the economy was able to raise its rate of growth slightly and, according to the latest forecast from the European Commission, stabilise itself.

In 2016, real growth in Germany at 1.9 percent was solid given the uncertain external environment. Gross domestic product (GDP) had risen by 1.7 percent in the previous year. This growth was driven by domestic demand. Public and private consumption, in particular, rose significantly, as did investment in the construction sector. Expenditure on capital goods also rose, although at a more modest level. Strong domestic demand meant that imports grew more strongly than exports. As a result, the growth contribution from foreign trade was slightly negative.

(Source: Federal Ministry for Economic Affairs and Energy, BMWi)

## 2.2 Development of the business

### 2.2.1 Development of air transport

#### *Political unrest*

The business year was marked by the political tensions between Turkey and the Russian Federation as well as by the increasingly precarious security situation following terrorist attacks, predominantly in North Africa and Turkey. The attempted military coup in Turkey on 15 and 16 July 2016 and the subsequent mass dismissals from state institutions unsettled vacationers. Bookings by tourists declined in Egypt (approx. -37%), Tunisia (approx. -24%) and Turkey (approx. -12%) compared with the prior-year period, while Spain and Portugal recorded a rise in bookings, which positively impacted German overflights.

There were terrorist incidents at the airports of Brussels, Amsterdam, Istanbul and Gaziantep (south-eastern Anatolia Region of Turkey). Brussels Airport was closed for 14 days, resulting in around 4,500 cancellations in the airspace controlled by DFS and additional disruptions to the air transport system, whose economic implications will be hard to quantify.

#### *Competition, airlines' pressure to reduce costs and restructure*

Because of their strong position, traditional European airlines set the tone for the intense competition in their domestic markets. Their business models aim to provide complete coverage of a market with at least one hub for transferring passengers, which is fed by the airline, its subsidiaries and associated companies.

Lufthansa German Airlines (DLH) is still actively defending its market position as the market becomes more price-sensitive. By the start of 2017, it had not yet concluded a collective agreement with its pilots. The airline is forming an ever closer network of joint ventures for intercontinental flights to remain competitive against the Gulf airlines. Recently, All Nippon Airways from Japan, Air China and Singapore Airlines joined. These joint ventures allow Lufthansa to provide direct flights to Asia and North America, whereas the flights offered by the Gulf airlines regularly require a connecting flight. For European traffic, it is concentrating on expanding its Eurowings subsidiary, which is meant to grow to become the third-largest European low-cost airline. In addition to its own fleet of 37 aircraft and the 59 aircraft from Germanwings, it has additional aircraft from Sunexpress Deutschland (6), Eurowings Europe (4), Brussels Airlines (51) and Air Berlin (33) in operation. Air Berlin flew slightly more in 2016 than in the previous year. Nevertheless, it plans to significantly reduce its fleet. Lufthansa will lease 38 aircraft from Air Berlin. Thirty-three aircraft (A319 and A320) will be integrated into Eurowings and five other aircraft will be transferred to Austrian Airlines, a Lufthansa subsidiary. Another part of the Air Berlin fleet assigned to the tourist market together with aircraft and crew will be incorporated into a joint venture with the charter airline TUIfly. The remaining 75 Air Berlin aircraft will provide a feeder service for Etihad or be used for long-haul services, for example to North America.

Foreign airlines are a source of market dynamism, especially the low-cost carriers. In 2016, Ryanair raised the number of flights by around 20 percent and became the second largest airline in Germany. Other low-cost carriers, primarily Norwegian, WIZZ Air, easyJet, Transavia Airlines, Flybe and Vueling Airlines, are also strengthening their market position in German airspace and now account for more than 30 percent of the market. Gulf-based airlines (Emirates, Etihad and Qatar) continued to grow, with the number of flights increasing by around 9 percent.

*Climate action plan and emissions trading system*

EU Directive 2009/29/EC incorporates all aircraft that take off or land at an airport located in the EU in an emissions trading system and allocates certificates to the aviation industry (pollution rights), of which 85 percent have been assigned to the airlines involved. The remaining 15 percent were auctioned off. There is opposition – particularly from the USA, the Russian Federation, China and India – against the inclusion of airlines from non-EU States in the European emissions trading system.

*Grassroots movements, night curfew and the new Berlin Brandenburg Airport*

In Germany, citizens continue to react in a sensitive manner to noise disturbance caused by air traffic. The night curfew at Frankfurt Airport, the referendum against the third runway at Munich Airport and the renewed postponement of the opening of the new airport in Berlin are dampening the drivers of growth for the national economy.

*Air transport tax in Germany*

In Germany, the law introducing an air transport tax (*Luftverkehrssteuergesetz - LuftVStG*) has been in force since the beginning of 2011. This law governs the levying of a tax that has to be paid for every passenger that departs from a German airport.

The tax under the relevant regulation (*LuftVStFestV*) of this law amounts to:

<b>Tax (€) under the relevant regulation (LuftVStFestV)</b>		
	<b>2016</b>	<b>2015</b>
Short-haul flights	7.38	7.50
Medium-haul flights	23.05	23.43
Long-haul flights	41.49	42.18

This passenger-based air transport tax increases the overall costs for the entire air transport industry.

*Conflict of interests between renewable energy and air safety*

Within a radius of 15 kilometres, wind turbines can interfere with the proper operation of VOR and DVOR facilities and pose a hazard to air safety. (VOR is the short form of VHF omnidirectional radio range and the acronym VHF itself stands for very high frequency, while DVOR stands for Doppler VOR.) The Federal Supervisory Authority for Air Navigation Services (BAF) decides if the erection of new wind turbines can be approved in this radius based on the expert opinion submitted by DFS. Investors promoting the expansion of renewable energy are increasingly seeking legal remedies when they see the profitability of their projects being put at risk when approval is not granted. They are contesting the expert opinions of DFS and consider smaller distances and spacings to be technically acceptable.

DFS considers large parts of the expert opinions provided by opposing parties to be unsound. Following an appeal proceeding, the Higher Administrative Court of Lower Saxony strengthened the position of DFS and the BAF in December 2014. It recognised the technical arguments as well as the forecast calculations of DFS (BAF) and agreed that the wind turbines had the potential to cause interference. The Federal Administrative Court affirmed this decision in its entirety in April 2016. The decision is therefore legally binding. The legal disputes are not over yet as there are still a series of cases pending before the courts.

### *Other influences*

The leap year in 2016 and the UEFA European Championship in France resulted in an increase in air traffic of 0.3 percent.

In contrast to the strike by Lufthansa pilots, flight cancellations due to weather only had a limited effect but did result in delays.

## **2.2.2 Principle legal and regulatory influencing factors**

### *Calculation of charges and definition of profit*

In accordance with European regulations for air navigation service providers, DFS switched the cost-base for calculating charges from the German Commercial Code (HGB) to the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as at 1 January 2007.

The regulatory conditions had to be adjusted to avoid volatility in the level of charges caused, in particular, by the revised IAS 19. Its revision in 2013 led to considerable fluctuations in equity capital. In a directive dated 12 December 2012, the Federal Supervisory Authority for Air Navigation Services (BAF) laid down that the actual financing expense for occupational pensions should not be subject to the cost-efficiency targets of the performance plan, but is instead to be considered as a determined cost in the performance plan and therefore part of the cost-base. Charges take the length of service and interest cost into account in a mutatis mutandis application of IAS 19 as part of the performance plan. The uniform discount rate for the second reference period used to determine the obligation is based on the interest rate that can be earned on plan assets (3.54%). This rate reflects prudent commercial judgement. The differences between the obligation and plan assets (plan deficit/plan surplus) are allocated in a rolling fashion over the average remaining time to work of the staff (15 years) and also taken into account in the following reference periods as a component of the charges. Additional conservative assumptions for career, salary and inflation trends support the correct matching of the funding of occupational pensions and avoid random fluctuations in the cost-base for charges and therefore arbitrary charges for airspace users. A difference (funding deficit) between the obligation and the assets that is determined in the planning phase for the following reference period is distributed over 15 years and increases revenues and liquidity in the IFRS consolidated financial statements.

In addition, the regulatory authority has given DFS the right to spread the material measurement differences from the conversion from German Commercial Code (HGB) to IFRS for balance sheet items directly in equity, namely fixed assets (development costs, borrowing costs, depreciation and amortisation), pension obligations and other provisions (catch-up effects). The regulatory authority has also given DFS the right to invoice airspace users over a period of 15 years (until the end of 2022) for the ex-post financing requirements (Article 6 of Regulation (EC) No 1794/2006).

There is a divergence between the commercial accounting rules and the basis for determining revenues from air navigation charges. This divergence leads to a corresponding divergence in the expense line items. Since 2013, the assessment basis for tax has been based on the charges-related result, in accordance with Section 31b(3) of the German Aviation Act (LuftVG). However, a corresponding regulation to determine the basis for the payment of dividends is still not in place.

### *Uncontrollable costs*

Article 14(2a) of Regulation (EU) No 391/2013 allows for the sharing of costs with airspace users for the costs that do not lie within the control of air navigation service providers. Despite the fact that the first reference period is over, the assessment, identification and determination of these uncontrollable costs has still not been clarified once and for all because the European Commission has still not supplied an unequivocal determination.

Currently, the European Commission is developing an application guide for uncontrollable costs (Article 14(2) of Regulation (EU) No 391/2013) together with the representatives of the Member States. The contents of which have neither been finalised nor published and therefore offer DFS no reliable orientation. In addition, the Federal Republic of Germany has not yet reported any uncontrollable costs for the first reference period to the European Commission. The European Commission also has not taken any final decisions on the uncontrollable costs already reported by other Member States.

Given the overall uncertain legal situation, which also relates to allowable remedies and legal recourse, DFS does not yet recognise those costs in the consolidated financial statements stemming from the first and second reference periods which, in its own legal opinion, should be borne by airspace users (as at 31 December 2016: €26.3 million). On the other hand, DFS already recognises a provision for the uncontrollable costs that probably have to be reimbursed for the first and second reference periods (as at 31 December 2016: €33.5 million).

### *European funding programme*

The EU plans to provide €2.5 billion of grant funding for targeted investment in the ATM sector (air traffic management) through its Connecting Europe Facility (CEF) until the end of 2020. DFS participates in this programme and acquired grant funding of approximately €124.3 million in 2016. However, under Article 14(2)(13) of Regulation (EU) No 409/2013 (common projects), such grant funding counts as 'other revenue' as set out in Article 2(k) of Regulation (EU) No 1794/2006 and has to be used to reduce air navigation charges. DFS supports regulation at the European level that would provide real incentives for ANSPs to become involved in this programme.

### *Strengthening of the equity position by the Federal Republic of Germany*

The German legislator approved a contribution of €50 million to the registered capital of DFS in 2015 as well as €112.5 million in each of the following four years (a total of €500 million). This was carried out as part of a budgetary appropriation under the Law on the Approval of the Federal Budget for the Fiscal Year 2015 (*Gesetz über Feststellung des Bundeshaushaltsplans für das Haushaltsjahr 2015*, BGBl. I p. 2442). The Federal Republic of Germany as the sole Shareholder undertook to raise the registered capital accordingly. The notarial recording was made on 3 November 2015 and the entries in the commercial register were made on 25 January (€50 million) and 1 March 2016 (€450 million). In 2015, DFS received two contributions totalling €162.5 million and an additional contribution of €112.5 million in 2016.

On 25 November 2016, the German Bundestag approved an additional capital contribution of €101.9 million for 2017 in the Budget Act 2017 (printed document of the Bundestag 18/9200, 18/9202).

All these measures should strengthen the equity base and stabilise the charges at a level appropriate for the European setting, even in times of demanding regulatory targets.

## 2.2.3 Forecast/actual comparison

Forecast/actual comparison 2016			
	Actual as at 31 Dec 2015	Forecast for 2016	Actual as at 31 Dec 2016
Service units	En-route services: 12.91m units, terminal services: 1.35m units	Stable trend (DFS forecast)	En-route services: 13.49m units, terminal services: 1.40m units
Revenues	€1,231.0m	Declining trend in revenues	€1,169.7m
Present value of pension obligations	€3,827.1m	Significant increase	€4,565.6m
Depreciation and amortisation	€109.6m	Slight rise in level of depreciation and amortisation	€108.9m
Earnings	€123.6m	Earnings at a low level	€86.6m
Staff	5,742	Reduction in staff numbers	5,695

Depreciation and amortisation came in slightly below the forecast because the necessary capital expenditure was lower than planned.

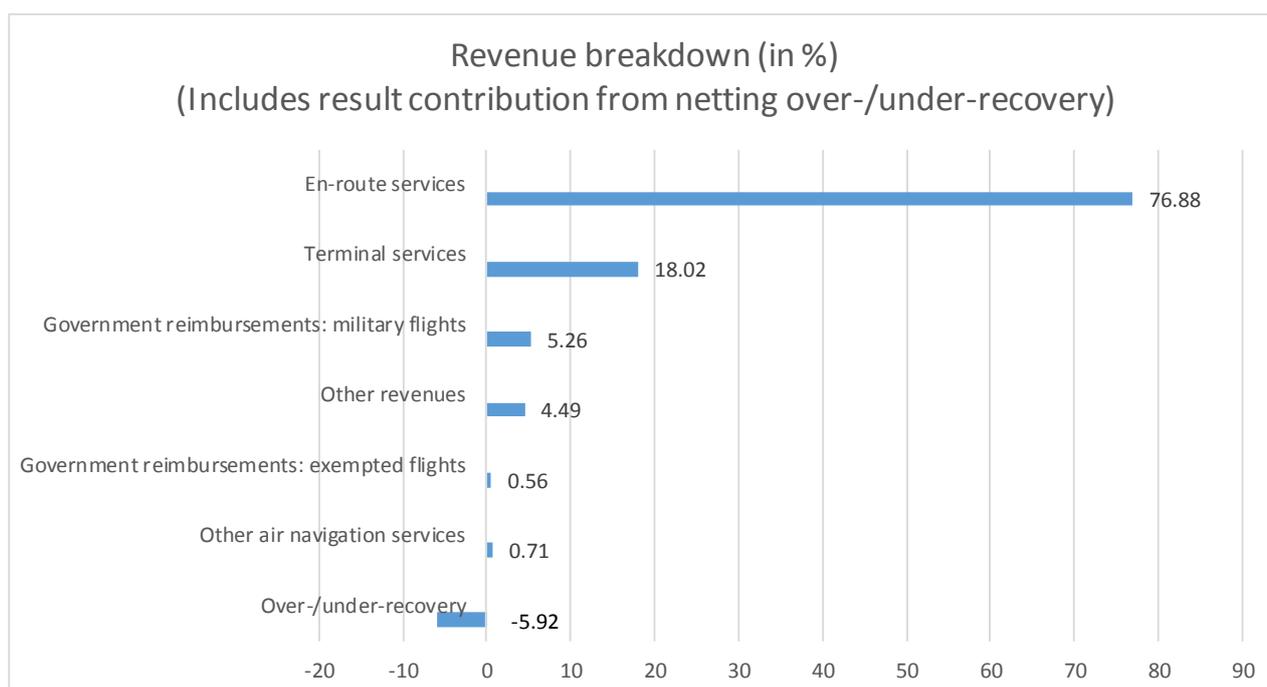
More information on earnings can be found in section 2.3.4.

## 2.3 Results of operations

### 2.3.1 Revenues

In 2016, the DFS Group generated revenues of €1,169.7 million, representing a decline of 5.0 percent compared with the previous year (€1,231.0 million) because of the significant reduction in unit rates required by regulation.

For DFS, the shift from full cost recovery to a performance-oriented charging structure for en-route and terminal services brings with it substantial changes in the breakdown of revenues. Within certain limits, DFS is exposed to opportunities and risks resulting from the development of air traffic (see section 2.3.4).



Revenues from air navigation services decreased from €1,193.3 million to €1,117.3 million. This is after netting the relevant share of the over- or under-recovery from previous years (€13.3 million including the carry-over for en-route services) and the over-recovery 2016 (€56.0 million including the carry-over for en-route services). Revenues from en-route and terminal services declined significantly because of the adjusted unit rates (see section 3.1).

<b>Revenues from en-route charges (€m)</b>					
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Total	899.3	962.3	801.1	796.2	753.4
Compared with previous year (%)	<b>-6.5</b>	<b>+20.1</b>	<b>+0.6</b>	<b>+5.7</b>	<b>+1.9</b>

These revenues were exclusively generated by DFS.

<b>Revenues from terminal charges (€m)</b>					
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Gross	211.5	233.8	232.6	227.3	218.3
Reimbursements paid	(0.7)	(0.7)	(0.6)	(0.9)	(0.7)
Net	210.8	233.1	232.0	226.4	217.6
Compared with previous year (net, in %)	<b>-9.6</b>	<b>+0.5</b>	<b>+2.5</b>	<b>+4.0</b>	<b>+5.2</b>

These revenues were exclusively generated by DFS.

<b>Revenues from government reimbursements (€m)</b>					
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Military operational air traffic	61.6	61.0	59.1	57.4	57.1
Exempted flights	6.5	6.5	6.5	6.5	6.5
Total	68.1	67.5	65.6	63.9	63.6
Compared with previous year (%)	<b>+0.9</b>	<b>+2.9</b>	<b>+2.7</b>	<b>+0.5</b>	<b>-0.9</b>

These revenues were exclusively generated by DFS.

Reimbursements for military operational air traffic contain services provided by the Maastricht unit. The exempted flights relate to en-route flights under visual flight rules.

<b>Revenues from other air navigation services (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Aeronautical publications	4.2	7.0**	0.3	7.5**	3.3
Flight inspection services	2.7	2.2	2.0	2.5	3.0
Other air navigation services	1.4	0.9	1.2	1.5	1.1
<b>Total</b>	<b>8.3</b>	<b>10.1</b>	<b>3.5</b>	<b>11.5</b>	<b>7.4</b>
of which commercial business	4.2	3.8	---	---	---
- Aviation products/publications	(4.2)	(3.8)	---	---	---
Compared with previous year (%)	<b>-17.8</b>	<b>+188.6</b>	<b>-69.6</b>	<b>+55.4</b>	<b>-2.6</b>

\* Prior-year figures adjusted; comparability with prior year limited

\*\* This item contains income from a technology transfer agreement (2013: €4.6 million; 2015: €3.0 million). This means it is neither directly comparable with previous years nor with subsequent years.

<b>Other revenues (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>Total</b>	<b>52.5</b>	<b>37.7</b>	<b>20.7</b>	<b>17.2</b>	<b>20.4</b>
of which commercial business	48.7	37.7	---	---	---
- Air navigation services	(20.7)	(14.1)	---	---	---
- Energy sales	(5.1)	(5.0)	---	---	---
- Consulting and project business	(22.9)	(18.6)	---	---	---
Compared with previous year (%)	<b>+39.3</b>	<b>+82.1</b>	<b>20.3</b>	<b>-15.7</b>	<b>+2.0</b>

\* Prior-year figures adjusted; comparability with prior year limited

The Group generates other revenues primarily from air traffic control services at nine German regional airports and Gatwick Airport, consultancy and staff services, apron management service, energy sales and training services.

### 2.3.2 Other operating income

<b>Other operating income (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>Total</b>	<b>46.6</b>	<b>33.3</b>	<b>35.3</b>	<b>33.7</b>	<b>77.8</b>
of which commercial business	0.5	0.9	---	---	---
- Air navigation services	(0.1)	(0.2)	---	---	---
- Energy sales	(0.3)	(0.7)	---	---	---
- Miscellaneous	(0.1)	(0.0)	---	---	---
Compared with previous year (%)	<b>+39.9</b>	<b>-5.7</b>	<b>+4.7</b>	<b>-56.7</b>	<b>+102.6</b>

\* Prior-year figures adjusted; comparability with prior year limited

Other operating income rose primarily because of grant funding received. The high in 2012 was an exception attributable to a special item from the termination of the QTE transaction (€52.2 million, see section 6.2.2.4).

Material components:

- Project-specific funding by the European Commission (€25.6 million)
- Income from the QTE transaction, exchange rate gain (€8.7 million)
- Derecognition of liabilities (€6.1 million)
- Reimbursement of costs of the business year and of previous years (€1.3 million)
- Benefits-in-kind (€3.1 million)
- Reversal of provisions (€1.8 million)

### 2.3.3 Principal expense categories

<b>Employee expenses (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012**</b>
<b>Total</b>	<b>838.5</b>	<b>850.7</b>	<b>803.1</b>	<b>808.5</b>	<b>772.2</b> <b>(789.1)</b>
thereof wages and salaries	609.2	593.6	593.8	585.7	586.1
thereof social security costs and expenses for pensions and assistance	206.4	230.0	180.2	197.8	160.2 (177.2)
thereof costs of personnel belonging to the Federal Aviation Office (LBA)***	22.9	27.0	29.1	25.0	25.9
of which commercial business	33.1	23.7	---	---	---
- Air navigation services	(12.9)	(7.2)	---	---	---
- Aviation products/publications	(0.5)	(0.4)	---	---	---
- Consulting and project business	(19.7)	(16.1)	---	---	---
Share of total costs (%)	77.1	77.2	76.9	76.7	75.1 (75.5)
Compared with previous year (%)	-1.4	+5.9	-0.7	+4.7	+10.0 (+12.4)

\* Prior-year figures adjusted; comparability with prior year limited

\*\* Prior-year figures adjusted to IAS 19 (revised 2011). Figure in brackets: originally reported figure.

\*\*\* LBA: Federal Aviation Office - *Luftfahrt-Bundesamt*

Interest of €90.7 million accruing from provisions for pensions and early retirement is charged to the financial result. The return on plan assets (€51.5 million) is credited to the financial result.

The recently concluded collective agreement covering remuneration (see section 4; short form: VTV) added to staff costs retroactively from 1 January 2016, while the lower service cost reduced staff costs.

<b>Other operating expenses (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012**</b>
<b>Total</b>	<b>128.9</b>	<b>130.8</b>	<b>132.7</b>	<b>138.3</b>	<b>144.0</b>
of which commercial business	11.3	7.0	---	---	---
- Air navigation services	(6.2)	(2.1)	---	---	---
- Energy sales	(1.3)	(1.6)	---	---	---
- Aviation products/publications	(0.8)	(0.8)	---	---	---
- Consulting and project business	(3.0)	(2.5)	---	---	---
Share of total costs (%)	11.8	11.9	12.7	13.1	14.0 (13.8)
Compared with previous year (%)	-1.5	-1.4	-4.0	-4.0	-7.1

\* Prior-year figures adjusted; comparability with prior year limited

\*\* Prior-year figures adjusted to IAS 19 (revised 2011). Figure in brackets: originally reported figure.

Material components:

- Spare parts and maintenance (€46.4 million)
- Occupancy costs (€16.3 million)
- Costs of external personnel (€10.6 million)
- Rental and leasing (€8.6 million)
- Telecommunication costs (€6.6 million)
- Exchange rate loss from the QTE transaction (€8.7 million)
- Legal and consultancy costs (€5.0 million)
- Travel costs (€6.1 million)
- Other employee expenses (€6.3 million)
- Vehicle costs (€3.3 million)
- Insurance (€2.7 million)

<b>Depreciation and amortisation (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012**</b>
<b>Total</b>	<b>108.9</b>	<b>109.6</b>	<b>104.5</b>	<b>102.4</b>	<b>105.0</b>
of which commercial business	1.8	1.7	---	---	---
- Air navigation services	(0.1)	(0.1)	---	---	---
- Energy sales	(1.6)	(1.5)	---	---	---
- Aviation products/publications	(0.1)	(0.1)	---	---	---
Share of total costs (%)	10.0	10.0	10.0	9.7	10.2 (10.0)
Compared with previous year (%)	<b>-0.6</b>	<b>+4.9</b>	<b>+2.1</b>	<b>-2.5</b>	<b>+2.4</b>

\* Prior-year figures adjusted; comparability with prior year limited

\*\* Prior-year figures adjusted to IAS 19 (revised 2011). Figure in brackets: originally reported figure.

### 2.3.4 Group earnings

In 2016, the DFS Group realised net income of €86.6 million (previous year: €123.6 million). The operational over-recovery, including the carry-over from en-route and terminal services, amounted to €23.8 million (previous year: over-recovery including carry-over from en-route services of €45.8 million).

<b>Net income (€m)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012**</b>
<b>Total</b>	<b>86.6</b>	<b>123.6</b>	<b>34.9</b>	<b>35.8</b>	<b>87.9 (73.1)</b>
of which commercial business	1.2	4.7	---	---	---
- Consulting and project business	(-0.7)	(-0.1)	---	---	---
- Air navigation services	(-0.9)	(2.3)	---	---	---
- Energy sales	(0.8)	(1.4)	---	---	---
- Aviation products/publications	(1.5)	(1.4)	---	---	---
- Miscellaneous	(0.5)	(-0.3)	---	---	---
Compared with previous year (%)	<b>-29.9</b>	<b>+254.2</b>	<b>-2.5</b>	<b>-59.3</b>	<b>+10.4 (-8.2)</b>

\* Prior-year figures adjusted; comparability with prior year limited

\*\* Prior-year figures adjusted to IAS 19 (revised 2011). Figure in brackets: originally reported figure.

The result in 2016 contains the costs reimbursed by airspace users for previous years of €53.4 million (previous year: €51.5 million) from the conversion of the cost-base for calculating charges from the German Commercial Code (HGB) to IFRS as at 1 January 2007 (catch-up effects). It also contains costs of €54.2 million (previous year: €56.1 million) from the change in the charges-related parameters for expenses for occupational pensions (imputed model, see section 2.2.2) within the scope of the introduction of regulated charges as at 1 January 2012. In addition, it contains capitalised development costs (€3.1 million) as well as grant funding received (€25.6 million). The net income was impacted by tax expense calculated on the basis of the charges-related result (see section 2.2.2).

<b>Earnings before taxes (€m)</b>	
<b>Net income</b>	<b>86.6</b>
Taxes on income and revenues	+5.7
<b>EBT</b>	<b>92.3</b>

There was a clearly positive impact on earnings from the development in service units being slightly higher than the forecast, the impact of the five-point programme and the fact that there was no retroactive reduction in the unit rates laid down for 2016.

DFS already takes into account the additional income from charges from 2015 to be offset in the charges for users in 2016 and 2017 (see section 2.2.2).

The net income of €1.2 million (previous year: €4.7 million) contributed by the commercial business was not significant.

Overall, the positive Group earnings were impacted by material special items.

## 2.4 Assets and financial position

### 2.4.1 Capital expenditure

The Group invests in the preservation and further development of the necessary infrastructure, provided the measures are based on legal obligations or support the development of earnings in an economically sound manner. Regulations and standards from ICAO, EUROCONTROL and the EU are taken into consideration. The safety of air traffic plays a decisive role when it comes to decisions on capital expenditure. Against this background, capital expenditure of €85.5 million was made in the business year 2016.

These projects are currently underway and represent the highest share of capital expenditure:

#### ***iCAS software [interoperability (through European collaboration) Centre Automation System] – implementation in the Bremen Control Centre***

The future control centre ATS system iCAS will, in particular, meet the interoperability requirements of the SES regulations (see section 7.2.1).

#### ***Radio Site Upgrade and Modernisation (RASUM) 8.33***

DFS is equipping 95 radio stations for the 8.33 kHz channel spacing requirements in lower airspace, including the necessary structural and infrastructural measures. The project caters for future traffic growth and implements the Conclusion taken by the ICAO European Air Navigation Planning Group (EANPG) 48 dated November 2006 and Regulation (EU) No 1079/2012.

#### ***Voice switching system ISIS-XM (Improved Speech Integrated System) in Bremen***

DFS is harmonising its voice switching systems and is replacing the system in Bremen within the scope of the BRISE project. In the future, ISIS-XM is to be installed at all DFS control centres to achieve a homogeneous system landscape. A uniform user interface and concept will increase training efficiency and create the necessary conditions to enable the transfer of services (e.g. consolidating control centres at night) and new concepts to ensure ATC operations in contingencies.

#### ***Overhaul of the Academy on the Langen Campus***

Since 2016, DFS has been modernising the Academy building to ensure that the building can be used efficiently and without restrictions.

#### ***Extension of VAFORIT software (Very Advanced Flight Data Processing Operational Requirements Implementation)***

The new air traffic management system for upper airspace, which was put into operation in December 2010, is being extended. VAFORIT is fully stripless and replaced the old system KARLDAP (Karlsruhe Automatic Data Processing and Display System).

### ***Modernisation and Replacement of Surveillance Infrastructure (MaRS)***

The MaRS project involves the comprehensive replacement and modernisation of the surveillance infrastructure required for the air situation, including associated buildings and technical facilities all over Germany, over a period of 15 years with an investment volume of approximately €240 million. The pilot facility is being set up at a site in Frankfurt West.

### ***Public-private partnership Kaufbeuren – provision of military air traffic management training of the Bundeswehr in Kaufbeuren by DFS***

As part of this measure, DFS is laying the foundations for the provision of military air traffic management training of the Bundeswehr in Kaufbeuren, Germany. This involves the purchase of land in Kaufbeuren, the first construction measures, and the investment in setting up and installing new simulator infrastructure and administrative office communications infrastructure.

In the business year 2016, assets under construction worth a total of €5.4 million were completed. The main project was:

### ***Navigation and Landing System (NLS) software 5.0***

The new NLS version 5.0 was rolled out. This version involves porting to Java, the complete changeover of the NLS communication process, in particular to support the central operation of external installations for navigation, communication and facility management. NLS Version 5.0 replaces Version 4.9.

With these projects, the DFS Group secures its position as a reliable partner for aviation.

## 2.4.2 Balance sheet structure

### *Effects of the consolidation on the prior-year values*

The prior-year figures from 2015 had to be adjusted to reflect the change in consolidation.

Total assets declined slightly from €1,809.5 million to €1,807.3 million.

As regards the line items on the left-hand side of the balance sheet, primarily financial assets declined (-€58.3 million), while the following increased: property, plant and equipment (+€43.9 million), liquid funds (+€6.4 million), trade receivables (+€2.5 million) and inventories (+€0.9 million).

On the right-hand side of the balance sheet, primarily equity (+€12.5 million) improved. Provisions for pensions (+€3.0 million) and current trade payables (+€1.3 million) also rose, while current other liabilities (-€19.5 million) declined.

Other line items on the balance sheet changed only slightly.

### Effects of the change in consolidation

	2015 (adjusted)	2015 (original)	Change	Change in %
Balance sheet total	1,807.3	1,809.5	-2.2	-0.1
Financial assets	8.9	67.2	-58.3	-86.8
Property, plant and equipment	536.4	492.5	43.9	8.9
Cash and cash equivalents	569.3	562.9	6.4	1.1
Trade receivables	176.9	174.4	2.5	1.4
Inventories	5.4	4.5	0.9	20.0
Equity	-830.8	-843.3	12.5	-1.5
Pension provisions	1,716.4	1,713.4	3.0	0.2
Current trade payables	23.3	22.0	1.3	5.9
Current other liabilities	98.9	118.4	-19.5	-16.5

More information can be found in Note 4.2.

### *Balance sheet 2016*

Based on the adjusted prior-year figures, total assets in 2016 rose by 7.6 percent over the previous year to €1,944.2 million (previous year: €1,807.3 million).

### *Assets*

Non-current assets declined by 3.5 percent, while current assets rose by 16.8 percent.

The change in non-current assets chiefly relates to depreciation and amortisation on intangible assets and property, plant and equipment being higher than the level of capital expenditure. This led to an overall decline in assets of around 3.6 percent.

The decline in other non-current assets resulted primarily from the QTE transaction (-€5.2 million), partially offset by higher receivables for EU grant funding (+€2.8 million).

The increase in current assets was the final result of counteracting effects. The Group quadrupled its investment in securities from €144.9 million (formerly commercial paper) to €557.2 million using fixed and variable rate investments through an investment entity. On the other hand, liquid funds declined by 32.0 percent (-€182.3 million). Other receivables decreased by €54.5 million primarily because of the under-recovery from 2014 (carry-over €46.4 million) which had to be charged to airspace users and the change in creditors with debit balances of 64.3 percent (-€12.2 million). Trade receivables declined by 5.5 percent, or €9.7 million.

#### *Equity and liabilities*

The level of equity deteriorated by €296.8 million primarily due to the remeasurement of the net defined benefit liability (-€545.9 million, OCI), which was only partially offset by the significant positive earnings (+€86.6 million) and the contribution (2015) and registration (2016) of the increase in registered capital (+€162.5 million, see Note 25).

Overall, the negative equity rose by 35.7 percent.

Non-current liabilities were influenced primarily by the impact of the net liability from pension obligations (from actuarial losses) and the financial liabilities. Based on the prior-year figures, the net liability (difference between obligation and plan assets) rose to €2,313.3 million (previous year: €1,716.4 million) because of the decline in the discount rate from 2.4 percent to 1.7 percent, while the salary trend (2.5%) remained stable. The slightly lower service cost had only a limited counteracting effect. Financial liabilities decreased (-€162.5 million) primarily due to the reclassification of the contributions made by the Federal Republic of Germany for the capital increase registered in 2016. Overall, non-current liabilities rose by 18.4 percent over the previous year.

Current liabilities declined by 4.1 percent.

Financial liabilities declined by 68.9 percent due to the repayment of an issued bond (-€22.9 million), while current provisions rose (+€2.5 million).

There was a rise in current trade payables of 32.0 percent – they chiefly relate to domestic suppliers.

Net financial indebtedness amounted to -€577.8 million as at 31 December 2016. The leverage ratio at the balance sheet date thus amounted to -29.7 percent. Interest expenses, driven primarily by pension obligations, were higher than interest income by €38.8 million.

<b>Current effects</b>				
	2016	2015 (adjusted)	Change	Change in %
Balance sheet total	1,944.2	1,807.3	136.9	7.6
Financial assets	6.4	8.9	-0.7	-9.9
Property, plant and equipment	517.0	536.4	-19.4	-3.6
Cash and cash equivalents	387.0	569.3	-182.3	-32.0
Trade receivables	167.1	176.9	-9.8	-5.5
Inventories	5.0	5.4	-0.4	-7.4
Equity	-1,127.6	-830.8	-296.8	35.7
Pension provisions	2,313.3	1,716.4	596.9	34.8
Current trade payables	30.7	23.3	7.4	31.8
Current other liabilities	97.9	98.9	-1.0	-1.0

<b>Balance sheet indicators</b>			
	2016	2015*	2015
Net financial indebtedness (€m) (Financial liabilities – liquid funds)	-577.8	-159.4	-153.6
Leverage ratio (%) (Net financial indebtedness/balance sheet total)	-29.7	-8.8	-8.5
Asset intensity (%) (Non-current assets/balance sheet total)	40.6	45.3	45.9

\* Prior-year figures adjusted; comparability with prior year limited

<b>Balance sheet indicators when fully considering catch-up effects from the conversion to IFRS and the under-recovery</b>			
	2016	2015*	2015
Net financial indebtedness (€m) (Financial liabilities – liquid funds)	-577.8	-159.4	-153.6
Leverage ratio (%) (Net financial indebtedness/balance sheet total)	-14.3	-4.7	-4.5
Asset intensity (%) (Non-current assets/balance sheet total)	19.6	24.0	24.3

\* Prior-year figures adjusted; comparability with prior year limited

In Note 37, a detailed reconciliation can be found of the equity as at 31 December 2016 to the charges-related equity. The charges-related equity includes DFS Energy and takes into consideration the catch-up effects from the conversion to IFRS and the procedure approved by the Federal Supervisory Authority for Air Navigation Services (BAF) for costs to be recovered from the treatment of occupational pensions (see section 2.2.2).

## **2.4.3 Liquidity**

### **2.4.3.1 Financial management**

The Group Financial Management division is responsible for securing and supporting the statutory obligation of DFS and, at the same time, fostering the competitiveness of the commercial business. DFS optimises its performance through an appropriate equity and debt structure, the economical use of equity capital, an optimised use of debt and the planning and control of cash flows.

Financing is carried out primarily by drawing on the cash inflows from operating activities and on funds from a money and capital market programme. Furthermore, there are special items impacting assets that have a temporarily favourable effect on liquidity (see section 2.3.4).

The Group Treasury department plans and controls the level of cash and cash equivalents and the procurement of funds. It incorporates subsidiaries in the flow of funds by means of a cash pool. Funds are collected and centrally controlled where legally allowed and commercially sensible. The financing requirements of subsidiaries are satisfied by inter-Group settlement accounts and loans. The company aims to achieve a balanced financing structure and holds, despite the negative interest rate environment, liquid reserves to effectively meet unexpected changes in the environment and market (see section 6.2.2).

Business dealings with a selected group of principal bankers are conducted using uniform standards. Existing reciprocal cash flows are continuously improved.

The DFS Group finances its non-current liabilities congruently with debenture loans and a bond traded on the exchange in Luxembourg. Short-term liquidity is covered by means of a multi-currency commercial paper programme. This programme is supported by a syndicated line of credit of €160 million as a back-up facility, which runs until September 2017. Neither of the two means of financing was taken up in the business year.

With its money and capital market programme, the DFS Group attracts both national and international investors. These investors base their investment decisions and price fixing on the credit rating of each debtor. To support their decision-making process, DFS has its creditworthiness rated by means of standardised credit ratings from credit rating agencies according to internationally uniform and consistent procedures. The rating agencies Standard & Poor's and Moody's confirmed the ratings in combination with its Shareholder for 2016 both for their short- and long-term ratings (AAA/A-1+ and Aa3/P-1).

At year-end 2016, the issued volume had a nominal value of €25.0 million from a bond with a remaining term of up to two years as well as a nominal value of €285.0 million from debenture loans with a remaining term of up to seven years.

The average interest rate of the fixed-rate bond and debenture loans amounted to 2.782 percent at the balance sheet date.

### 2.4.3.2 Cash flow statement

Cash and cash equivalents at year-end are made up as follows:

<b>Cash and cash equivalents (€000)</b>			
Cash inflow (+) / cash outflow (-)	<b>2016</b>	<b>2015*</b>	<b>2015</b>
Operating activities	336,356	315,914	297,247
Investing activities	-81,257	-74,924	-69,168
Financing activities	-25,098	155,747	162,448
Changes impacting cash flow	230,001	396,737	390,527
Cash and cash equivalents at the beginning of the year	714,246	317,509	317,323
Cash and cash equivalents at the end of the year	**944,247	714,246	707,850

\* Prior-year figures adjusted; comparability with prior year limited

\*\* Contains fund assets not protected against insolvency

Detailed information can be found in the cash flow statement (Annex 5) and in Note 33. No dividend was paid out to the Shareholder in the 2016 business year.

## 2.5 Overall assessment on the economic situation

The results and financial position have been influenced primarily by the legal environment, catch-up effects, grant funding, capitalisation of development costs, economic regulation, the moderate but stable growth in air traffic, the continuing low interest level as well as measures taken by the Board of Managing Directors to reduce costs.

Revenues at the DFS Group were lower than in the previous year due to the significant reduction in unit rates required by regulation. Net income came in at €86.6 million. While the net income remained clearly in positive territory, it was primarily influenced by catch-up effects and the change in the charges-related parameters for expenses related to occupational pensions (imputed model). DFS is promoting the refinancing of the occupational pensions through a higher commitment to asset forms with a more attractive risk/return ratio.

The Federal Republic of Germany has strengthened the equity position of DFS.

In 2016, the commercial business only made a small contribution to improving earnings despite the significant rise in revenues.

The five-point programme is having a significant effect on reducing costs, so that net income was clearly in positive territory.

## 3 Segment reporting

### 3.1 Regulated business

#### 3.1.1 En-route services

##### *Service unit*

For en-route services, a service unit is computed as the square root of the weight factor multiplied by the distance factor. The economic value of each flight conducted is taken into account so that the value of the air traffic control service performed is considered by the legislator when establishing the relevant air navigation charges.

Definition of service units:

$$\text{En-route services: } \sqrt{\frac{\text{max. take-off weight in tonnes}}{50}} \times \frac{\text{distance in km}}{100}$$

The amount to be paid by the airspace user is given by multiplying the service unit by the unit rate.

<b>Development of service units – en-route services</b>		
	<b>2016</b>	<b>2015</b>
Total	13,489,534	12,906,339
Compared with previous year (%)	<b>+4.5</b>	<b>+0.8</b>

In 2016, the number of service units rose by roughly 4.5 percent over the previous year. This was 3.3 percent higher than the revised performance plan, which forecast 13,057,000 service units for 2016. The traffic growth in 2016 was primarily attributable to the expansion in the portfolio offered by low-cost carriers, which are continuing to compete fiercely in German airspace. Germany's overall stable economy played a major role in this development, as did the effect of the leap year in 2016 (+0.3%).

The national unit rate for en-route charges comprises air-traffic-related cost elements of DFS, the German Meteorological Service (DWD), EUROCONTROL, the Maastricht Control Centre and other national bodies, such as the German Federal Ministry of Transport and Digital Infrastructure (BMVI) and the Federal Supervisory Authority for Air Navigation Services (BAF).

<b>En-route unit rate (€)</b>						
	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Total	69.36	82.59	90.15	77.32	76.50	74.19
DFS share	60.10	66.68	74.56	62.55	63.22	60.41
Compared with previous year (total, in %)	<b>-16.0</b>	<b>-8.4</b>	<b>+16.6</b>	<b>+1.1</b>	<b>+3.1</b>	<b>+3.3</b>

The EU Regulation on the common charging scheme for air navigation services (Regulation (EU) No 391/2013) contains compensation mechanisms to partly offset losses in revenues as a consequence of fluctuations in traffic volumes as well as an inflation adjustment. The decrease in the unit rate from 2016 on is primarily attributable to the use of a higher planning value for the service units in the revised performance plan and the savings stemming from the five-point programme (see section 1.5.2). In 2017, Federal Government funds will be used to bear the costs of air navigation charges for all components of the cost-base for charges as well (see section 7.3.1). Overall, the unit rate will decline by 16.0 percent. The proportionate unit rate for DFS will decrease by 9.9 percent over the previous year. However, the DFS share of costs of the en-route unit rate will rise to approximately 87 percent overall.

### IFR flights 2016

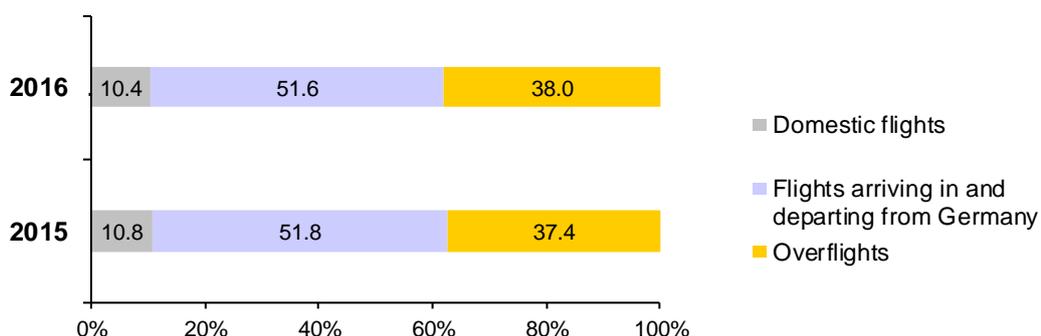
In Germany, the number of IFR flights in 2016 rose by 2.6 percent compared with the previous year. Significant growth factors for German air traffic came from the low fuel price and the dynamism of the low-cost sector. The large traditional European airlines also expanded their portfolio in Germany.

The volume of civil air traffic rose by 2.7 percent over the previous year, while military air traffic declined by 3.7 percent.

IFR flights in Germany		
	2016	2015
Total	3,108,761	3,029,066
Compared with previous year (%)	+2.6	+1.6

The breakdown of domestic flights, arrivals and departures as well as overflights remained basically the same as in the previous year. Domestic flights declined slightly, while arrivals and departures rose marginally.

Distribution of IFR flights (%)



### 3.1.2 Terminal services

#### Service unit

For terminal services at the 16 designated international airports, a service unit is the quotient obtained by dividing by fifty the maximum take-off weight, expressed as a figure taken to two decimal places, to the power of 0.7.

Definition of service units:

$$\text{Terminal services: } \left( \frac{\text{max. take - off weight in tonnes}}{50} \right)^{0.7}$$

The amount to be paid by the airspace user is given by multiplying the service unit by the unit rate for terminal services.

Development of service units – terminal services		
	2016	2015
Total	1,395,519	1,346,490
Compared with previous year (%)	+3.6	+2.3

The unit rate rose by 3.6 percent over the previous year, which is roughly 2.8 percent over the revised performance plan. This is the third consecutive year where German airports recorded above-average growth, which is attributable to the intensive competition from low-cost carriers.

The unit rate for terminal services comprises air-traffic-related cost elements of DFS, the German Meteorological Service (DWD) and other national bodies, such as the German Federal Ministry of Transport and Digital Infrastructure (BMVI) and the Federal Supervisory Authority for Air Navigation Services (BAF).

Terminal unit rate (€)						
	2017	2016	2015	2014	2013	2012
Total	130.59	159.23	181.62	183.87	181.99	171.29
DFS share	127.80	151.31	173.28	177.20	175.84	165.70
Compared with previous year (%)	-18.0	-12.3	-1.2	+1.0	+6.2	+5.1

The decrease in the unit rate from 2016 on is attributable to the use of a higher planning value for the service units in the revised performance plan. In addition, the unit rate will decline because of the savings produced by the DFS five-point programme. In 2017, Federal Government funds will be used to bear the costs of air navigation charges for all components of the cost-base for charges as well (see section 7.3.1). This will reduce the overall unit rate by 18.0 percent and the DFS share by 15.5 percent. The DFS share of costs of the unit rate for terminal services will rise to approximately 98 percent.

*Traffic at the airports where DFS operates*

In 2016, traffic rose significantly by 2.3 percent over the previous year at the designated international airports in Germany. This traffic volume was distributed very unevenly. The growth in traffic at Berlin Schönefeld (+27.6%) and Cologne Bonn (+6.3%) airports was very noticeable. The main reason for this was the change in strategy at the low-cost carriers over the last few months. Previously, such airlines had concentrated on regional airports. Now, they are increasingly shifting to the designated international airports.

**3.1.3 Results of operations**

<b>Results (€m)</b>		
	<b>2016</b>	<b>2015*</b>
Total revenues (external)	1,166.0	1,222.1
Total expenses	1,035.6	1,063.5
EBIT	130.4	158.6
Financial result	-39.2	-45.2
Income taxes	-5.8	5.5
Net income	85.4	118.9

\* Prior-year figures adjusted; comparability with prior year limited

More information on segment reporting can be found in Note 32.

The changeover from full cost recovery to charges based on performance for en-route services (since 2012) and for terminal services (since 2015) has had a material impact on cost structures. Savings or additional expenses are no longer passed on in the following periods but directly impact the earnings of DFS. Currently, there are still issues concerning interpretation and application which could influence the future development of the company's economic situation. From the point of view of DFS, there are a small number of measurement, accounting and charging issues which have not been unequivocally resolved since the date of the transition (31 December 2011 / 1 January 2012). The regulatory authority and DFS continue to work on the contentious issue of drawing up a binding catalogue of qualifying uncontrollable costs. Such costs will have to be borne in full by airspace users.

For en-route services (since 2012) and for terminal services (since 2015), the regulatory situation has split the risks resulting from the differences between planned and actual traffic volume between the airspace users and DFS. If defined thresholds are exceeded, DFS is authorised and obliged to return or demand any over- or under-recoveries (carry-over).

<b>Risk transfer from deviation in traffic volume</b>		
<b>Deviation in traffic volume (v)</b>	<b>DFS share</b>	<b>User share</b>
$v \leq 2.0\%$	100.0%	---
$2.0\% < v \leq 10.0\%$	30.0%	70.0%
$v > 10.0\%$	---	100.0%

## 3.2 Commercial business

### 3.2.1 Business activities

The main focus of the (non-regulated) commercial business is on providing air traffic control services at nine German regional airports and two UK airports, the sale of aviation-related products and publications, the training of military air traffic personnel and the sale of energy.

#### *Air traffic at regional airports where DFS Aviation Services (formerly TTC) operates*

The changes in traffic experienced at the regional airports where DFS Aviation Services (formerly TTC) operates were varied, despite the general growth in flight movements in Germany. Only Karlsruhe Baden-Baden Airport experienced growth. The remaining airports suffered from declines in passengers and cargo.

Ryanair announced that it planned to grow its market share in Germany primarily at the larger international airports. This new strategy raises the competitive pressure on regional airports significantly, especially as the airline is increasingly stationing its aircraft at the larger international airports. The EU is reducing State aid (EU Guidelines 2014-2020) (2013/C 209/01), which is boosting the pressure to save at the airports primarily funded from the public purse. Overall, regional airports in Germany recorded a decline in traffic of 8.4 percent.

#### *Traffic in the United Kingdom*

From 2014 to 2016, the volume of air traffic in the United Kingdom grew at more than the European average within a stable economic environment. In 2016, flight movements rose by 5.4 percent over the previous year, while the 27 EU member countries saw growth of 3.1 percent over the same period.

#### *Traffic at Gatwick Airport*

Gatwick is the second largest airport in the United Kingdom and is considered the busiest single-runway airport in the world. It counts around 45 airlines as customers. Each year, it is used by an increasing number of passengers, currently more than 40 million, and offers connections to more than 200 destinations.

ANS fulfilled the higher performance demands placed on it at Gatwick Airport (increase in traffic of roughly 4%) and handled a traffic volume of up to 949 flight movements per day on the single runway safely. This was a new world record.

#### *Air navigation services at Edinburgh Airport*

In 2016, ANS won the tender to take over the provision of air traffic services at Edinburgh Airport in the United Kingdom.

Edinburgh Airport is the largest airport in Scotland. The 33 airlines that operate there fly approximately 12 million passengers to 130 destinations. In September 2016, ANS was awarded the contract to take over the provision of air traffic services: This is scheduled to take place in April 2018. ANS is developing a detailed transition plan with the UK air navigation service provider NATS and Edinburgh Airport (EAL) and is readying staff to take over services there.

### *Training of military air traffic control personnel*

In June 2015, DFS tendered for the provision of military air traffic management training in Kaufbeuren and was awarded the contract by the Federal Ministry of Defence (BMVg) in July 2015. The contract, which was signed on 1 March 2016, has a volume of roughly €160 million with a minimum term of 20 years. The integration and operational phase starts on 1 January 2017. With this move, DFS is strengthening the profitability of the commercial business and fostering civil-military integration.

### *Aviation-related products and publications*

The Group produces aeronautical charts and publications and other aeronautical information in paper and electronic form and sells them together with technical devices for flight preparation.

### *Consulting and project business*

The Aeronautical Solutions division advises air navigation service providers worldwide on procedures planning, airspace structures and safety management (consulting). It supplies systems and air-traffic-related data to airports, conducts apron management services at airports, maintains and services technical facilities, and sells training services. The division uses the specialist expertise of DFS departments.

### *Energy supplies*

DFS Energy produces and distributes electricity, heating water, steam and chilled water. The company supplies DFS (approx. 52%), the Paul Ehrlich Institute (approx. 48%) and the German Federal Environment Agency (its share is contained in the figure for the Paul Ehrlich Institute) at the Campus in Langen. DFS Energy ensures that all users can operate off-grid for a limited period by providing an emergency power supply. It also ensures that the technical infrastructure is fit for purpose and that a reserve of primary energy is kept available.

## 3.2.2 Results of operations

<b>Results (€m)</b>		
	<b>2016</b>	<b>2015*</b>
Total revenues (external)	53.3	42.5
- Consulting and project business	22.9	18.6
- Air navigation services	20.8	14.3
- Energy sales	5.4	5.8
- Aviation-related products/publications	4.2	3.8
- Miscellaneous	0	0
Total expenses	52.6	37.8
EBIT	0.7	4.7
Financial result	0.4	0.8
Income taxes	0.1	-0.8
Net income	1.2	4.7

\* Prior-year figures adjusted; comparability with prior year limited

More information on segment reporting can be found in Note 32.

## 4 Personnel

Motivated and qualified staff are imperative for the long-term success of the DFS Group. This is why human resources management at DFS stresses a holistic approach from selection through appropriate compensation and targeted training and development to the long-term retention of staff in the Group. Financial incentives are supported by HR policies aligned to the different phases of life and family needs.

### *Employee structure*

As at 31 December 2016, the DFS Group had a total of 5,695 employees. This number is made up of non-exempt staff (covered by collective agreements), exempt employees (not covered by collective agreements) and executive staff as well as assigned personnel of the Federal Aviation Office (LBA) working for DFS and soldiers released from regular service. Non-exempt employees are subject to the provisions of the company-specific collective bargaining agreements.

Executive staff and exempt employees negotiate their contracts freely on an individual basis. These employees have target agreements covering corporate goals and their area of expertise. The degree of fulfilment of these agreements determines the variable salary components.

The assigned personnel of the Federal Aviation Office (LBA) working for DFS comprise another employee group. These established and non-established civil servants, who have remained in an employment relationship with the Federal Government, still fall under the collective agreement for the public service (*Tarifvertrag für den öffentlichen Dienst – TVöD*). The collective agreements at DFS do not apply to them. DFS bears the relevant expenses.

Air traffic controllers (from the age of 55) and flight data assistants (from 59) receive transitional payments in the period before their formal retirement. This right to receive transitional payments accounts for a significant component of the pension commitment.

Information on the compensation structure of the Board of Managing Directors can be found in Note 44.

<b>Employees (as at 31 December)</b>					
	<b>2016</b>	<b>2015*</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>Permanent employees (total)</b>	<b>5,695</b>	<b>5,742</b>	<b>5,879</b>	<b>6,046</b>	<b>6,100</b>
(of which at subsidiaries)	<b>(157)</b>	<b>(70)</b>	<b>---</b>	<b>---</b>	<b>---</b>
Salaried staff	5,210	5,214	5,316	5,317	5,314
(of which at subsidiaries)	(157)	(70)	---	---	---
Soldiers released from regular service	202	211	219	235	246
Wage-earners	22	25	26	27	28
Technical/commercial students & apprentices	41	42	45	50	51
Air traffic control trainees	48	52	51	172	193
Personnel belonging to the Federal Aviation Office (LBA)	172	198	222	245	268
of which established civil servants	(134)	(152)	(171)	(188)	(204)
of which non-established employees	(38)	(46)	(51)	(57)	(64)
Compared with previous year (%)	-0.8		-2.8	-0.9	+0.6
Share of female employees (%)	27.1	27.0	26.8	26.5	26.3
Share of foreign employees (%)	4.7	3.9	4.0	4.1	4.3

\* Prior-year figures adjusted; comparability with prior year limited

As part of the consolidation, the table above contains employees from subsidiaries (2016) as follows:

DFS Aviation Services employed 58 members of staff (of which 41 were qualified or trainee air traffic controllers).

At the end of December, Eisenschmidt had ten members of staff.

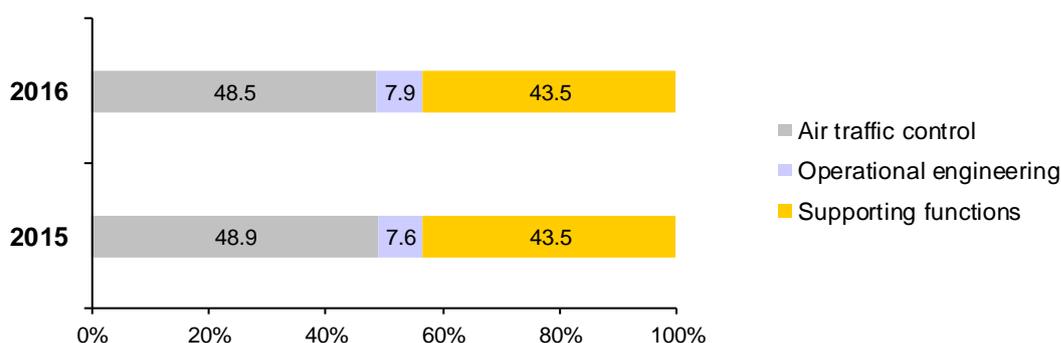
At the end of December, KAT had 26 members of staff.

At the end of December, ANS had 63 members of staff.

DFS Energy and DFS IBS have no employees of their own.

The planned long-term reduction in operating costs also covers a reduction in headcount. DFS will achieve this by means of age-related separations and by adopting a conservative policy as regards filling vacancies.

### Employees by area of duties (%)



Of the 5,695 employees of the Group, 916 were part-time – 597 women and 319 men. The share of part-time employees rose by 8.3 percent over the previous year, reaching 16.1 percent. The age structure of staff is well balanced, with the average age being 43.2 years. The turnover rate was 0.86 percent in 2016. At present, 27.1 percent of employees are women; a rate that has increased steadily since 2011. Currently, 55 of the 492 management positions in the company are held by women, representing a share of 11.2 percent.

DFS implements the German law on the equal participation of women and men in management positions in the private sector and in public service (FührposGleichberG) and stabilised as planned the share of female department heads at eleven percent (division directors: 0%) for the first shortened reporting period from 30 September 2015 to 31 December 2016. It has laid down a target for the share of female division directors of five percent and of female department heads of 13 percent for the period 1 January 2017 to 31 December 2021. As part of the five-point programme, the company is increasingly fostering in a targeted manner both family-friendly policies and equal opportunities at the company.

Foreign employees mainly come from the USA and the United Kingdom, followed by Spain and Austria. Overall, 45 nations are represented.

#### *Work and family*

DFS is continuing to expand measures to support staff in combining work and family life and has set up HR policies aligned with the phases of life. It has been certified by the non-profit Hertie Foundation under its 'work and family audit' (*audit berufundfamilie*) since 2014. Recertification is planned for 2017. Since 2011, DFS has been working with a childcare centre in Langen, where its Headquarters are located. Places are available for employees' children, and similar places are also available at childcare centres near the other DFS branches in Munich and Karlsruhe. Since 2016, DFS has also offered a programme for school-aged children during the summer holidays.

Over the course of their whole career, staff can make use of flexible working-time models, health programmes, a company sports club, seminars and further training opportunities.

#### *Personal staff development*

DFS is aware that a large part of the future success of the company is coupled to the further development of the individual strengths and abilities of its staff.

DFS offers a broad spectrum of measures to foster professional and interdisciplinary competences. The willingness to learn, the exchange of experience, networking and a feedback culture all play a central role in this regard.

### Training

DFS is well aware of its responsibility to society and has been offering job-starters attractive trainee and college places for years.

Training starts		
	2016	2015
<b>Total</b>	<b>57</b>	<b>60</b>
Air traffic controllers	42	48
Dual courses of studies/apprenticeships	15	12
Compared with previous year (%)	<b>-5.0</b>	<b>27.7</b>

In addition to training air traffic controllers, the spectrum of training currently offered at DFS also encompasses dual courses of studies in professions in short supply (degrees in electrical engineering, IT, air navigation technology and aviation management) and commercial apprenticeships. This allows DFS to meet its demand for qualified staff. As these staff are trained internally, they will, in all likelihood, take on duties within DFS on completion of their training or degree. In the future, DFS will continue to offer interesting and promising trainee and college places.

### Collective bargaining

The parties to the collective bargaining process agreed on a range of issues on 20 December 2016.

The Cornerstone Group Collective Agreement (known as GroupTV) contains obligations to make certain issues subject to collective negotiation, namely the minimum working conditions at subsidiaries and in the commercial business. Existing collective agreements at these entities continue to apply. The parties also agreed on a temporary stay on the transfer of employment contracts, duties or functions that are directly related to fulfilling the services laid down in Section 27c of the German Aviation Act (LuftVG) until 31 December 2021. In addition, there is an obligation to make all restructuring measures subject to collective negotiation that impact employment contracts, duties or functions that fall outside the scope of the named statutory and sovereign tasks.

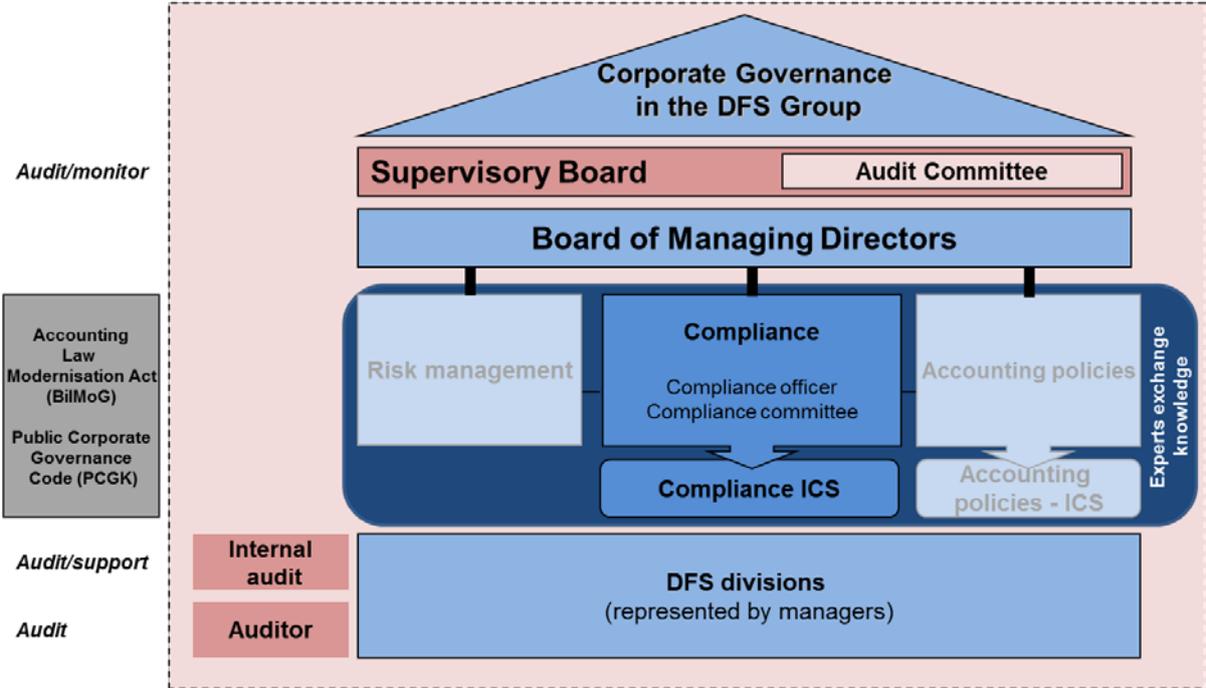
The Employment Structure Agreement governs, in particular, the rights of employees to avail themselves of a part-time working model for older employees (*Altersteilzeit*). This model is a so-called block model consisting of a working phase followed by a phase when the employees are released from their duties. It is tied to a minimum length of service of 20 years and a differentiated quota of at most 50 percent of an annual cohort. The maximum length of the working and release phase is six years for administrative staff and eight years for operational staff.

The collective agreement covering remuneration has a term of four calendar years and contains a retroactive pay rise of 1.5 percent as of 1 January 2016, followed by further pay rises of 2.0 percent as of 1 April 2017 and 2.0 percent as of 1 April 2018 as well as a rise of 2.7 percent as of 1 April 2019. DFS will also provide a support association (*Förderverein*) with 0.3 percent of the monthly remuneration. The support association still has to be established by the collective bargaining party.

Some of what was agreed still needs to be reflected in collective agreements and adjusted to concrete operational requirements. The collective bargaining agreements at the subsidiaries reflect the particular requirements of the competitive environment and have no material effect on the results and financial position.

# 5 Compliance

## Corporate Governance in the DFS Group



The State-owned DFS and the domestic subsidiaries where DFS is the majority shareholder are subject to the Public Corporate Governance Code (PCGK) of the Federal Government of Germany. Under this code, the Board of Managing Directors has to ensure adherence to and compliance with legal provisions and corporate guidelines. On the basis of this, DFS introduced a compliance management system (CMS) in 2011.

Together with the risk management system (RMS) and the internal control system (ICS) for accounting and financial reporting, these elements form the three pillars of the corporate structure for risk management. The compliance committee advises the compliance officer. The committee is made up of the executive management level from the Group Data Protection and Quality Management, Corporate Safety and Security Management as well as the Corporate Management divisions. To ensure the connection of the compliance management system to the internal control system and the risk management system, the committee is supplemented by the heads of Financial Management, Risk Management and Group Internal Audit, who are permanent guests of the committee. In 2016, the compliance committee had four scheduled meetings.

DFS employees can also turn to an external ombudsman if they suspect a compliance infringement.

The focal point of the activities in 2016 was the setting up of additional compliance processes, particularly in operations, and the conduct of an internal compliance audit.

The compliance management system is constantly upgraded and expanded. Organisationally, the issue is assigned to the Institutional and Legal Affairs division. There is a direct reporting channel from the compliance officer to the Board of Managing Directors and the Supervisory Board.

## 6 Risk report

### 6.1 Risk management system

DFS uses a comprehensive set of instruments to identify, analyse, monitor and manage the risks associated with its business. The risk management process is managed centrally by the independent Risk and Contract Management department. This department is supported by the risk management committee (RMC) when conducting evaluations that span several organisational divisions and processes. As a rule, the members of this body belong to the executive management level and are closely involved in the business decision-making processes, know company-wide interrelationships and are hence in a position to contribute to forming a comprehensive overview.

The direct and indirect subsidiaries of DFS are systematically managed and monitored using in-house risk management systems. The risk management systems of the subsidiaries are aligned with Group rules and report to Group management through the DFS Risk Management department.

Risk Management takes account of the changes taking place in the aviation industry and the company, advances risk management methodically and therefore ensures the early identification of risks and the combating of business risks.

This specialist department uses a process description and an operational instruction to lay down standards for the ongoing company-wide recognition, assessment, documentation and reporting of business risks. The early identification of risks begins with the applications for approval of business plans and projects. Possible effects encompass the following topics: operations (e.g. fulfilling the statutory mandate, infrastructure); finance (e.g. costs, financial markets, customers/suppliers); management (e.g. strategy, personnel, organisation) as well as external environment (e.g. politics and legislation, disasters and terrorist attacks).

As part of their management duties, the heads of the organisational units identify potential/existing risks that have arisen and are responsible for ensuring that the statements on the risk situation in their areas are correct. They report quarterly unless an ad hoc report is required. A risk announcement contains a description and an assessment of the risk as well as the causes and countermeasures. In general, the forecast period is one year.

Risks are assessed across all segments and are based on an evaluation of the probability of occurrence and the possible level of damage of the hazard under consideration as reported by the organisational unit concerned. The goal is a quantified assessment; in well-founded cases a qualified assessment is permissible. Criteria for a qualified assessment are laid down centrally in an assessment matrix. Only the risks to the going-concern status are included in the risk report to the Board of Managing Directors and the Supervisory Board.

The reporting of risks to the Board of Managing Directors takes place on a quarterly basis, while the Supervisory Board is informed on a half-yearly basis. Both reports include an overview of changes from the prior period and all notifications that were no longer judged to be business risks in the period under review.

The integrity of the risk management system is tested by Internal Audit as well as in the course of the audit of the annual financial statements by the external auditors.

## **6.2 Material risks**

### **6.2.1 Corporate strategy risks**

Corporate strategy risks arise primarily from misjudgements of external conditions and future market developments. They can lead to an inadequate alignment of corporate activities, with negative consequences for the results and financial position of the DFS Group. This is why DFS devotes considerable attention to the analysis and forecasting of air traffic, the political environment and the European charging and performance scheme. The Board of Managing Directors reviews its estimates in close cooperation with relevant bodies, checks variances and discusses risks. The DFS Board of Managing Directors therefore sees only a slight corporate strategy risk.

### **6.2.2 Financial risks**

#### **6.2.2.1 Principles of financial risk management**

As part of its business activities, the DFS Group is exposed to numerous financial risks. The management of these risks is an integral component of the planning and implementation system. The Board of Managing Directors lays down the associated corporate policy. The objective of the corporate policy is to contain and/or mitigate existing risks. DFS Financial Management implements these targets and uses a system to manage financial risks that is tailored to the specific business of the Group. Particularly since the beginning of the global financial market crisis, DFS has been continuously following and analysing the developments on the financial markets in a critical dialogue with its principal bankers and the rating agencies to reassess any existing strategies and develop new strategies as necessary.

As part of its overall risk management system, DFS performs Value-at-Risk (VaR) analyses to manage market price risks (interest, currencies). The risk position is assessed weekly by the Treasury department based on market price risks and is reported to the Board of Managing Directors at regular intervals. The VaR indicates the absolute loss for a company of a defined risk position which will not be exceeded with a previously defined probability over a given period of time. The calculation of the VaR at DFS is based on a holding period of ten days and a probability of 95 percent. On 31 December 2016, the cumulative loss at a confidence level of 95 percent amounted to under €2,707 thousand (previous year: €2,123 thousand).

The VaR is determined with the help of statistical time series on the relevant financial market data (interest rates, exchange rates). Historical simulations are computed by extrapolating scenarios from the past to the future using simulated changes in market values for financial instruments.

This market risk analysis includes all money market transactions of DFS, issued bonds, debenture loans, securities, currency hedges as well as all associated risk positions (foreign currency purchases and foreign currency receivables/liabilities). Quantitative information on VaR values for risks from currency and interest rate changes is summarised in Note 36.3.

Clearly defined external conditions support the planning and control of risks based on the reporting. Speculative transactions with derivative instruments where there is no underlying transaction are forbidden. As regards financial investing, transactions are only entered into with counterparties who either have a long-term rating of at least A+/A1, short-term A-2/P-2, or a correspondingly high creditworthiness or other form of collateral.

#### **6.2.2.2 Liquidity risk**

Daily liquidity is monitored by the Treasury department and is managed with liquidity planning during the year and over the medium term (see section 2.4.3.1).

#### **6.2.2.3 Default risk**

DFS is exposed to default risk and, increasingly, collection and enforcement risk from the operating business in en-route and terminal services, from the commercial business as well as from financial instruments. That is why receivables are monitored constantly in the operating business and default risks considered by means of specific allowances. In addition, for terminal services DFS demands security deposits from customers with relevant sales volumes when defined warning thresholds are exceeded.

For en-route services, EUROCONTROL invoices all flights on the basis of the data transmitted by the individual Member States and supplementary information from the Network Manager. The invoices are issued based on the data (operator, weight, distance) known at that point in time. In individual cases, agreements are reached under which third parties make partial payments of outstanding amounts for services received after consultation with the Member States and at EUROCONTROL's reasonable discretion. EUROCONTROL does not require any security to be lodged but initiates enforcement measures to collect amounts due which have not been paid within the deadlines laid down. This requires a resolution from the Member States.

DFS has no influence on the discretion applied when EUROCONTROL makes such decisions. The intergovernmental agreement entitled Multilateral Agreement relating to Route Charges dated 12 February 1981 (BGBl. 1984 II p. 109) at European level prevents it from demanding security deposits to limit imminent defaults for en-route services. Notwithstanding these restrictions, the regulatory authority currently rejects the inclusion of these collection, default and enforcement risks as uncontrollable costs. The maximum default risk is reflected in the carrying amounts of the financial assets recognised on the balance sheet.

Warranty obligations for the commercial business are demanded as part of a contract-related quality management.

#### **6.2.2.4 Rating risk**

The business and performance of DFS are monitored by external rating agencies and the Deutsche Bundesbank (eligibility of the debt instruments of DFS). Negative analyses and the downgrading of the ratings could make the take-up of external financing more difficult and negatively influence the conditions for such financing and lead to higher interest rates. DFS concluded a US lease-in/lease-out transaction (five tranches) with two US investors (QTE transaction) for a portion of its air navigation systems under non-current assets in 2002 and 2003.

This transaction was basically terminated in the second quarter of 2012. The remaining German shell structure with a remaining term up to and including 2021 is restricted to a receivable to Nord/LB bank (the borrower) and a liability to KfW bank (the lender). The associated cash flows match as regards amount, term and currency. Over its term, DFS bears the default risk to Nord/LB bank to the amount of €55.4 million as of the balance sheet date (previous year: €59.0 million). KfW Bank is authorised to extraordinarily terminate the loan if the rating of DFS falls under AA- (Standard & Poor's) or Aa3 (Moody's). In such a case, DFS would have to name a third party within a period of 30 days that will acquire the receivable of KfW against DFS to the amount of €56.3 million (previous year: €60.2 million).

#### **6.2.2.5 Interest rate risk**

The Group is exposed to interest rate risk from the financing area, from financial assets as well as from the measurement of obligations under occupational pensions.

The effective management of the interest rate risk is ensured through the use of derivative financial instruments with term and volume congruence between the underlying transaction and the hedge. DFS monitors the impact of regulations to be able to react with appropriate measures to changes in the area of occupational pensions.

Variances in the present value of the pension obligations for changes in parameters of +/- 0.5 percentage points are shown in the sensitivity analysis in the Notes (see Note 26.3).

#### **6.2.2.6 Currency risk**

The DFS Group is exposed to transaction risks as part of cross-border procurement transactions. The majority of foreign currency purchases/liabilities results from suppliers invoicing in US dollars. The total volume amounted to approximately US\$0.6 million in the reporting period (previous year: US\$1.7 million). Other currencies are only of minor importance.

These risks are limited by means of hedging using derivative financial instruments. Currency risks from financial transactions (foreign bonds, commercial paper) are hedged immediately on conclusion of the transaction.

A bullet loan of €3.5 million with a term of two years made by DFS IBS to ANS (UK) can lead to negative effects for ANS from currency fluctuations.

#### **6.2.3 Performance-related and IT risks**

The top priority for DFS and its subsidiaries is to ensure the safety of air traffic, which is why DFS has installed safety and security management systems for the provision of air traffic control services that correspond to the provisions of Regulation (EU) No 1035/2011. The risk management system of DFS and its subsidiaries has incorporated ATM-related systems and applications as well as administrative systems and applications.

A variety of measures are taken at the level of planning, implementing and operating of the infrastructure of DFS and its subsidiaries to minimise the probability of downtime of the operational infrastructure of DFS which would endanger air safety and impact the business performance. Where required for the provision of air navigation services, such measures include, for example, redundancy, diversification and spatial separation of critical systems, the extensive storage of data on separate data carriers as well as the SAP backup computer centre.

### 6.2.4 Staff-related risks

The commitment and welfare of its staff are crucial for the DFS Group to maintain safety in German airspace and to ensure an efficient level of performance.

Economic regulation and technological developments mean that the company is facing significant changes. The Human Resources department develops measures that support management and staff in exploiting the opportunities offered by change.

A risk that cannot be underestimated stems from demographic change and increasing competition among companies for highly qualified staff and executives. This risk takes on particular significance when one considers the approximately ten percent decline in the labour force participation rate in Germany forecast by 2030. The internal demographic characteristics also present a risk as regards a balanced age structure and the long-term maintenance of professional skills.

Human Resources has set up a strategic HR and executive development programme and HR marketing and recruiting measures targeted at maintaining human capital. As necessary, qualified professionals are recruited externally.

DFS has a comprehensive in-house health management programme to ensure that staff remain healthy and maintain their ability to perform.

### 6.2.5 Insured risks

The insurance cover of DFS encompasses common insurable risks of DFS and its subsidiaries. It particularly includes compensation for the loss or damage of material assets and the resulting interruption of operations minus the usually agreed deductible.

It should be kept in mind when assessing the insured risks that DFS mainly performs sovereign functions on behalf of the Federal Republic of Germany in keeping with Article 87d of the German Basic Law (*Grundgesetz*) in conjunction with Sections 31b and 31d of the German Aviation Act (*LuftVG*). As a consequence, the Federal Republic of Germany is liable for claims brought by third parties for damages in line with the principles of State liability. In the case of damage culpably caused by DFS, aviation liability insurance covers a limit of €767 million per instance of damage, thus releasing the Federal Republic of Germany from its liability to this amount. For non-sovereign tasks, statutory public liability insurance is covered. For contractually agreed activities, such as the apron management service or the provision of air traffic services abroad through subsidiaries, the respective public liability agreed to the named amount in the contract is covered.

In addition, claims for damages by third parties from employer's liability risks are covered by insurance.

## **6.2.6 Internal control and risk management system (Section 315(2)(5) of the German Commercial Code, HGB)**

The internal control and risk management system implemented as regards Group accounting and financial reporting is designed to present, in an orderly and efficient manner, all transactions impacting the finances or accounts and the associated flow of money, goods and services. The assessment of transactions and their recognition are conducted by adhering to international and national accounting and disclosure standards as well as by adhering to the applicable European and national statutory provisions covering air navigation charges, to tax and corporate law and to the German principles of proper accounting (GoB).

The divisions responsible have the necessary organisational structures and processes. The tasks are described in functional diagrams and ISO-certified documents. Process- and competence-based job descriptions are available for each member of staff in these divisions.

All recordable transactions are recognised using a standardised enterprise resource planning (ERP) software product – SAP R/3. This software carries out programmed plausibility checks. Access rights and the separation of functions in the system are administered outside of the Finance division.

The statutory regulations and the regulations laid down in the Articles of Association are supplemented in all divisions by detailed internal instructions. These include the mandatory provisions laid down in internal accounting handbooks, guidelines and orders that reflect IAS/IFRS, the German Commercial Code (HGB), legislation governing charges and tax law. These provisions are constantly reviewed and updated as necessary. Special issues due to complex, one-off and non-routine transactions are dealt with by means of decisions on their accounting treatment.

The internal accounting standards are based on specific European regulations tailored to the business of DFS. Cost-efficiency is reviewed and there is a separation between the tasks financed by air navigation charges and the commercial business. In the regulated business, a differentiation is made between the regulated sub-areas of en-route and terminal services.

Internal and external bodies concerned with accounting report to the Board of Managing Directors on a monthly basis on potential problem areas and identified risks. Variances to planned figures are analysed. This reporting is supplemented by constant and standardised information to the Supervisory Board. Early warning signals are defined and are used to systematically counteract the variances from the ongoing business.

The preparation of the annual and consolidated financial statements is an organised process and it is coordinated by a central division of DFS. This preparation follows a detailed procedural plan, a standardised information and request methodology as well as checklists tailored to the Group's requirements to ensure the completeness and correctness of the processed information. An optimal exchange of information is ensured through regular coordination rounds with all parties involved in the process. The staff members involved in accounting and financial reporting receive regular training. There is a clear separation of duties among those involved in their preparation. This separation of functions and segregation of duties is strictly applied. Complex actuarial reports and valuations are drawn up by specialised external providers. DFS reviews the plausibility and usability of these. DFS uses any advances in knowledge gained to improve the efficiency, transparency and reliability of the process. The external auditors participate in the consultations of the Supervisory Board and report on the results of their audit.

Internal Audit carries out compliance audits at irregular intervals. Processes that are relevant to the financial statements are also investigated.

The interlocking instruments described above provide DFS with an internal control and risk management system for accounting and financial reporting which ensures a true and fair view of the results and financial position. Conscious or unconscious erroneous actions are thus avoided to the greatest possible extent and discovered with a high degree of probability.

### **6.3 Overall assessment of risk situation**

The Board of Managing Directors currently discerns no risks, except for abstract terror and catastrophe scenarios, which individually, or as a group, would pose a threat to the going-concern status of the company.

## 7 Report on expected developments

### 7.1 Development of the economic environment and the effects on air transport

The prospects for the global economy in 2017 are trending positive. The US economy grew in the second half of 2016, productivity in EU countries is increasing steadily, growth in China remains at a high level and the large raw material exports (the Russian Federation and Brazil) are slowly leaving recessionary territory. Following the rise in global gross domestic product (GDP) of 2.9 percent in 2016, the OECD forecasts growth of 3.3 percent for 2017.

Leading economic institutes expect growth in German GDP in 2017 to come in between 1.1 percent and 1.7 percent. According to these institutes, economic growth in Germany will depend primarily on private consumer spending. Favourable interest rates are promoting public and private investments, which are playing a considerable role as drivers of economic growth as well. The Federal Government forecasts an increase in the real GDP of 1.4 percent for 2017 in its autumn projection 2016. For 2018, a rise of 1.8 percent is expected, with a much lower forecast of 1.4 percent per year for the three subsequent years until 2021.

According to the International Air Transport Association (IATA), the international air transport industry will earn profits of roughly €29.8 billion in 2017 thanks to lower fuel prices and higher load factors. This amounts to a net margin of 4.1 percent. This will be the third year in a row where airlines will earn a return on capital (7.9%) above the weighted average cost of capital (6.9%). Globally, the association expects a rise in passenger flights of 6.9 percent, while cargo is only expected to increase by 3.0 percent.

EUROCONTROL provides the STATFOR 7-year forecast (EUROCONTROL 7-Year Forecast February 2017). In this prognosis, it expects an increase in IFR flights of 3.3 percent for German airspace in 2017. For the whole period up to 2023, STATFOR forecasts a rise in air traffic of 0.7 percent per year in its low-growth scenario based on the year 2016.

The revised performance plan has a material impact on DFS during the second reference period. For en-route services, this plan sees an increase in air traffic of 0.5 percent in 2017 compared with the actual traffic figures for 2016 and an increase of 0.4 percent for terminal services. Over the whole reference period until 2019, the performance plan sees an annual increase of 0.9 percent for en-route services and 1.2 percent for terminal services.

For 2017, EUROCONTROL expects another rise in traffic of 3.1 percent over 2016 for the United Kingdom in its 7-year forecast from February 2017. In the medium term, the risks from the United Kingdom leaving the European Union (Brexit) will result in steady growth. EUROCONTROL therefore assumes that traffic in the United Kingdom will grow by around 1.2 percent per year between 2018 and 2023, while the European Union is forecasting growth by an average of around 1.7 percent.

## 7.2 Future development

### 7.2.1 Regulated business

#### *Single European Sky (SES)*

The SES initiative of the European Commission aims to shape the formation and management of a single cross-border European sky. It promotes the optimisation of capacity and service quality and anticipates the formation of functional airspace blocks (FAB) for air traffic management which should be based on traffic flows rather than national borders.

Since 2012, as part of the SES II package, a performance scheme for air navigation services and network functions in the area of en-route control services has been in force based on Regulation (EU) No 390/2013 and Regulation (EU) No 391/2013. Regulation (EU) No 390/2013 lays down a performance scheme for air navigation services and network functions and Regulation (EU) No 391/2013 lays down a common charging scheme for air navigation services. The goal is to enhance the performance of air navigation services, network functions and the cost situation in the Single European Sky. The performance scheme has mandatory goals for predefined periods (reference periods) at the European level for the areas of safety, environment, capacity and cost-efficiency (reference periods, see below).

#### *FAB Europe Central (FABEC)*

DFS along with its civil and military partners from Belgium, France, Luxembourg, the Netherlands and Switzerland joined forces with their transport and defence ministries to launch an initiative to create a functional airspace block at the heart of Europe, known as FABEC (FAB Europe Central). As a central element of SES, it covers a total area of approximately 1,713,442 km<sup>2</sup>, is one of the busiest and most complex airspaces in Europe and includes the majority of Europe's largest airports and hubs. The FABEC Treaty entered into force with the ratification by the Kingdom of Belgium on 1 June 2013. All the States involved had completed the ratification process by then and submitted the ratification documents. At the level of air navigation service providers (ANSP), DFS has signed an ANSP cooperation agreement with its partner organisations that governs their collaboration.

The focus of FABEC is on cross-border cooperation, both in the civil and the civil-military field.

With its partners, FABEC incorporates, and modifies as necessary, the targets from the European Commission for safety, capacity, environment and cost-efficiency into one joint position and implementation plan.

### *Second reference period*

The European Commission decided that the second reference period would run from 2015 to 2019 and introduced mandatory European targets for the performance area safety and a financial incentive system for the performance area capacity. In the opinion of the European Commission, the performance plan submitted by the FABEC States did not meet the targets for cost-efficiency and was therefore rejected. In the opinion of the European Commission, the new performance plan which was then drawn up – which contained adjustments to charges within the course of the year – was still not adequate and this plan was also rejected in autumn 2015. At the 64th meeting of the Single Sky Committee (SSC) on 21 February 2017, the Member States and the European Commission agreed, following difficult negotiations, on the retroactive acceptance of the performance plan for the second reference period (see Report on post-balance-sheet-date events in Note 40).

The targets of the revised performance plan restrict the economic performance of DFS. DFS takes a critical view of the cost-efficiency targets laid down in the FABEC performance plan. The ability of the company to act is severely restricted and determinations, such as on the return on equity, do not adequately reflect the risks under which the company operates. For the next reference period, the European Commission is urged to align the regulatory targets more closely to the capabilities and local circumstances of the air navigation service providers.

### *EASA*

In December 2015, the European Commission proposed an amendment to Regulation (EC) No 216/2008 (EASA basic regulation). If the Council of Ministers and the European Parliament agree to this package (possibly in 2017), the competence of EASA in areas such as the certification of ATM/ANS manufacturers and equipment will be expanded.

### *SES II+ package*

In 2014, the European Parliament passed a draft of the package of regulations SES II+ on its first reading, which had been amended when compared with the Commission proposal. In December 2014, the Council agreed on a "general direction", but did not formally conclude the procedure because of foreign-policy differences between two of the contracting parties. In 2016, all further work on the SES II+ package was therefore put on hold. Currently, the further course of this initiative is unclear.

### *iCAS programme*

DFS launched the iCAS programme to consolidate all projects, sub-projects and individual measures for the development of the ATS system iCAS, the future air traffic control system at all DFS control centres. The programme comprises both concrete procurement and development measures to provide the air traffic control system iCAS for the DFS control centres as well as varied bilateral and multinational cooperation measures at a European level. The iCAS programme aims to ensure that the multinational initiatives to shape the future European air traffic management system and the development of the air traffic control system iCAS are conducted in a coordinated manner and that the interests of DFS are suitably taken into account.

## SESAR

In addition, DFS supports the European requirements for the modernisation of the air traffic management network through its participation in the SESAR project. Under the auspices of the SESAR Joint Undertaking (SJU), it develops, together with its partners, technologies and procedures that are fit for purpose (see section 1.7). DFS has been an active member of the SJU since June 2009, along with other leading organisations.

### *Deployment Manager*

DFS aims to exert material influence on the SES initiative of the European Commission as part of its strategic orientation. To this end, DFS has been an active member of the SESAR Joint Undertaking (SJU) since June 2009, along with other leading organisations. In numerous projects, it developed and updated the requirements on the air traffic management network as well as on the most suitable technologies and procedures.

Since 2014, the SESAR development process has moved to the long-term phase of technical implementation and the setting up of air traffic management (ATM) procedures (deployment management). As part of the SESAR Deployment Alliance, DFS has been fulfilling the task awarded by the Commission in 2014 to plan, coordinate and implement a comprehensive modernisation of European airspace within the scope of the deployment management for the time period 2014 to 2020. This consortium is a cross-industry partnership of four airlines, eleven air navigation service providers and 25 airport operators. The task is financed out of the European CEF funding programme (CEF – Connecting Europe Facility), where a total of roughly €2.5 billion is earmarked for deployment management. DFS is thus able to influence the introduction of new technologies and benefits from the considerable grant funding as well as from the avoidance of incorrect cost allocation and flawed capital expenditures.

### *Remote tower control (RTC)*

In the future, the Tower division will control the international airports of Saarbrücken (SCN), Erfurt (ERF) and Dresden (DRS) using modern camera and transmission technology. This involves the bundling of aerodrome control at one central location in Leipzig (LEJ) and promises long-term costs savings from the use of new technologies and procedures as well as from the optimised and efficient deployment of staff under one uniform concept of endorsements and operation.

### *Centralised services*

In spring 2013, EUROCONTROL presented the centralised services initiative. It identified nine operational supporting services that should no longer be provided nationally but centrally for all EUROCONTROL Member States.

DFS supports the approach proposed by EUROCONTROL and aims to exploit the opportunities and minimise the risks coming from the implementation of the EUROCONTROL initiative. EUROCONTROL has broken down the initial nine services into 18 work packages; the majority of these were offered for tender. After a review of all of them, four work packages were selected for participation. DFS submitted one tender. Because of resource availability and unclear liability and legal questions, it decided not to participate in another project. The scope of two other tenders has not yet been finally clarified.

In addition, DFS is working with its A6 partners on proposals to optimise important individual centralised services. This work is being funded by the European Commission Innovation & Networks Executive Agency. A6 is an alliance of six European ANSPs (DFS, DSNA, ENAIRE, ENAV, NATS and PANSAs) as well as the ANSP consortia NORACON, B4 and COOPANS.

#### *Maastricht unit*

From its control centre in Maastricht, EUROCONTROL is taking on the military air traffic control services in the Hannover Upper Information Region (UIR) and the Amsterdam Flight Information Region (FIR). The Federal Ministry of Defence (BMVg) released DFS from its responsibilities with effect from 1 January 2017. DFS had provided air navigation services for operational air traffic (OAT) in the Hannover UIR from its Maastricht unit since 1997. The DFS unit in Maastricht is being closed. This will see the completion of civil-military integration for German airspace.

#### *Unmanned aircraft systems (drones)*

In March 2016, the Board of Managing Directors of DFS decided to form a company-wide team to deal with the topic of unmanned aircraft systems (UAS, commonly known as drones) in the future. This team primarily deals with the further development of the DFS strategy on drones, the resulting work programme and the positioning of DFS in the emerging market for the civil use of drones.

At the DFS technology conference, The Drone Challenge, held in November 2016, DFS, Deutsche Telekom, Deutsche Post DHL Group and RWTH Aachen University signed an agreement to research concrete applications of unmanned aircraft. In the future, the mobile network could be used for the surveillance and monitoring of unmanned aircraft beyond the remote pilot's line of sight. A prototype for a UAS air traffic management system (UTM) is also to be developed to raise the safety level in uncontrolled airspace and allow flights beyond the remote pilot's line of sight.

### **7.2.2 Commercial business**

The Group is intensifying civil-military cooperation and strengthening the business relationship with the Bundeswehr. It is using the take-over of air navigation services at Gatwick and Edinburgh airports as a starting point for winning further contracts in the air navigation services market in the United Kingdom, such as London Stansted Airport. In the future, these business activities will mainly be managed by DFS Aviation Services, which will continue to market Group products and services in the Middle East (Gulf region) and, through representative offices in Singapore and Beijing, in Asia.

Eisenschmidt supports the core business by publishing and selling aeronautical charts, training material for pilots and other aeronautical information. The general technical and economic implications of unmanned aircraft systems is currently being analysed and the profitability of various business models is being checked Group-wide.

Group EAD Asia Pacific Ltd. (GEAD AP) is scheduled to be sold to Air New Zealand Ltd. in the first quarter of 2017.

## **7.3 Results and financial position**

### **7.3.1 Revenues and costs**

For the second reference period, the Board of Managing Directors is currently observing a stable development in air traffic within the planning assumptions.

The determination of the performance plan for air navigation services and the associated economic regulation of air navigation charges will lead to the continued splitting of the traffic risk and revenue risk between airspace users and air navigation service providers in the second reference period. Due to the wide fluctuations in the traffic forecasts issued by the national supervisory authorities and the long period covered by the forecast period, these risks can only be estimated with a high degree of uncertainty.

In addition, the demanding regulatory targets are forcing DFS to achieve more savings, which DFS is pursuing under its five-point programme. The Board of Managing Directors has aligned the level of staff recruitment in air traffic control with the stagnating traffic and has stabilised this level for the long term. It remains the case that vacancies are still only filled after being critically reviewed.

The Board of Managing Directors does not expect an impact on the results from the introduction of the incentive system (capacity).

In the Budget Act 2017 approved on 25 November 2016, the Federal Government plans to reimburse DFS €34.0 million for VFR full costs; staff and pension obligations of former public service employees of the Federal Administration of Air Navigation Services (BFS) / the Federal Aviation Office (LBA); FABEC administration cost contributions and for the provision of infrastructure at EUROCONTROL (printed document of the Bundestag 18/9200, 18/9202).

### **7.3.2 Strengthening of the equity position by the Federal Republic of Germany**

The Federal Republic of Germany is strengthening the equity position of DFS with a contribution of €601.9 million overall. On 4 January 2017, it paid the second tranche of €112.5 million. It will pay the outstanding contributions to the registered capital of €101.9 million in 2017, and €112.5 million each year in 2018 and 2019. Thanks to these capital measures, DFS can react flexibly to the strict cost controls required by regulation aimed at reducing air navigation charges.

### **7.3.3 Capital expenditure**

In the future, capital expenditure for air navigation systems required to expand capacity and for the infrastructure at the international airports in Munich and Berlin as well as replacement investments will lead to marginally higher charges for depreciation. Additional capital expenditure will be financed from cash flow and loans and amortised by matched depreciation charges. The adjustment in lifespan of the ATCAS system in Munich and the renovation of the Air Navigation Services Academy building are also taken into consideration.

### **7.3.4 Liquidity**

Currently, the financial strategy of DFS is primarily being influenced by two counteracting effects from events on the capital markets. Low interest rates on the capital markets are favouring the take-up of debt and ensuring low interest expenses. However, the low returns that can currently be earned on the market mean that the pension plan assets are not yielding substantial low-risk income. The planned growth in plan assets for pensions is therefore slowing down and will be supported in the future by a higher commitment to asset forms with a more attractive risk/return ratio. DFS therefore continues to plan to replace its current insurance-based refinancing of occupational pensions step by step with a fund-based solution.

### **7.3.5 Summary and earnings forecast**

The Board of Managing Directors expects moderate but stable growth at a low level in the volume of air traffic in Europe. Revenues will probably decrease in 2017 because of declining unit rates that are subject to strict economic regulation.

The Board of Managing Directors is therefore discussing the regulatory environment with all stakeholders and is reviewing legal measures against the determinations in the performance plans and the non-recognition of uncontrollable costs.

As is common in this industry, expenses in the regulated business are primarily influenced by the economic regulation of the unit rates, staff costs and occupational pensions. The Board of Managing Directors is counteracting these challenges using collective bargaining measures and the targeted reduction of costs under the five-point programme. It focuses on boosting productivity, reacting to fluctuating demand with increased staff flexibility and limiting staff recruitment. Vacant positions are successively not being refilled and natural turnover is being used to reduce staff numbers. Airspace structures and procedures are being optimised and capital expenditure on recoverable, high-performance and harmonised ATM systems is being stepped up. Project and general costs are being reduced.

The Board of Managing Directors is counteracting the potential declines in revenues in a targeted manner with its five-point programme and is striving to reduce its annual operating costs (see section 1.5.2).

The commercial business is being expanded successively. For 2017, the Board of Managing Directors expects increases in revenues in the high single-digit million euro range from the start of training of military air traffic personnel, the expansion of air navigation services in the United Kingdom, the development of software for the iCAS project and from setting up new representative offices.

The costs of the commercial business will rise over the year under review because of the expenses associated with acquiring new contracts, with setting up new representative offices and with the start of operations in Edinburgh and Kaufbeuren. Compared with 2016, the commercial business will nevertheless contribute improved earnings in the low single-digit million euro range.

## **Group management report 2016**

In 2017, the Board of Managing Directors expects the Group to record positive earnings at the level of the previous year, resulting primarily from catch-up effects and the five-point programme.

**Langen, 11 April 2017**

**The Board of Managing Directors**

**Prof Klaus-Dieter Scheurle**

**Robert Schickling**

**Dr Michael Hann**



**DFS Deutsche Flugsicherung GmbH**  
**Consolidated statement of comprehensive income**  
**for the period 1 January 2016 to 31 December 2016**

	Note	2016 €000	2015 <sup>1)</sup> €000	2015 <sup>2)</sup> €000
Revenues	5	1,169,748	1,231,026	1,204,667
Changes in inventory and other own work capitalised	6	3,020	295	311
Other operating income	7	46,560	33,278	37,507
<b>Total operating revenues and income</b>		<b>1,219,328</b>	<b>1,264,599</b>	<b>1,242,485</b>
Cost of materials and services	8	-11,874	-10,218	-3,254
Employee expenses	9	-838,504	-850,657	-843,050
Depreciation and amortisation	10	-108,913	-109,596	-106,147
Other operating expenses	11	-128,898	-130,831	-130,552
<b>Earnings before interest and taxes (EBIT)</b>		<b>131,139</b>	<b>163,297</b>	<b>159,482</b>
Financial income	12	95,564	49,762	51,894
Financial expenses	12	-134,368	-94,197	-94,523
<b>Financial result</b>	12	<b>-38,804</b>	<b>-44,435</b>	<b>-42,629</b>
<b>Profit (loss) before income taxes</b>		<b>92,335</b>	<b>118,862</b>	<b>116,853</b>
Income taxes	13	-5,748	4,724	5,562
<b>Net income</b>		<b>86,587</b>	<b>123,586</b>	<b>122,415</b>
Of which attributable to the Shareholder of the parent company		86,587	123,586	122,415

<sup>1)</sup> Prior-year figures adjusted to reflect Group values

<sup>2)</sup> Prior-year figures are taken from Annual Report 2015

	Note	2016 €000	2015 <sup>3)</sup> €000	2015 <sup>4)</sup> €000
<b>Net income</b>		<b>86,587</b>	<b>123,586</b>	<b>122,415</b>
Of which attributable to the Shareholder of the parent company		86,587	123,586	122,415
<b>Other comprehensive income</b>				
Expenses and income without subsequent reclassification in the income statement recognised in equity				
Reclassification in the income statement				
Remeasurement of the net defined benefit liability from the defined benefit obligation = actuarial gains (+) and losses (-) of the ongoing business year	25	-556,044	399,359	399,099
Tax effects	25	0	0	0
Expenses and income without subsequent reclassification in the income statement recognised in equity				
Reclassification in the income statement				
Change in the fair value of available-for-sale financial assets	25	11,079	0	0
Measurements from foreign currency translation	25	-919	456	0
Tax effects	25	0	0	0
<b>Total other comprehensive income</b>	25	<b>-545,884</b>	<b>399,815</b>	<b>399,099</b>
Of which attributable to the Shareholder of the parent company		-545,884	399,815	399,099
<b>Total result</b>		<b>-459,297</b>	<b>523,401</b>	<b>521,514</b>
Of which attributable to the Shareholder of the parent company		-459,297	523,401	521,514

<sup>3)</sup> Prior-year figures adjusted to reflect Group values

<sup>4)</sup> Prior-year figures are taken from Annual Report 2015

## DFS Deutsche Flugsicherung GmbH

### Consolidated balance sheet as at 31 December 2016

	Note	31 Dec 2016	31 Dec 2015 <sup>5)</sup>	31 Dec 2015 <sup>6)</sup>
		€000	€000	€000
<b>Assets</b>				
Goodwill	14	80	80	0
Intangible assets	15	206,648	215,944	215,816
Property, plant and equipment	16	516,993	536,437	492,495
Investment property	17	752	782	782
Investments in associated companies	18	1,348	1,738	0
Financial assets	18	6,354	7,141	67,191
Derivative financial instruments	18	1,765	0	0
Other receivables and assets	21	52,336	55,684	53,228
Deferred tax assets	13	3,345	794	810
<b>Non-current assets</b>		<b>789,621</b>	<b>818,600</b>	<b>830,322</b>
Trade receivables	19	167,148	176,871	174,351
Future receivables from construction contracts	20	6,774	2,302	2,201
Other receivables and assets	21	30,304	84,815	84,685
Inventories	22	5,043	5,361	4,476
Securities	23	557,243	144,902	144,902
Liquid funds	24	387,004	569,345	562,948
Current tax assets	31	1,062	5,144	5,599
<b>Current assets</b>		<b>1,154,578</b>	<b>988,740</b>	<b>979,162</b>
<b>Balance sheet total (assets)</b>		<b>1,944,199</b>	<b>1,807,340</b>	<b>1,809,484</b>

<sup>5)</sup> Prior-year figures adjusted to reflect Group values

<sup>6)</sup> Prior-year figures are taken from Annual Report 2015

# DFS Deutsche Flugsicherung GmbH

## Consolidated balance sheet as at 31 December 2016

	Note	31 Dec 2016	31 Dec 2015 <sup>7)</sup>	31 Dec 2015 <sup>8)</sup>
		€000	€000	€000
<b>Equity and liabilities</b>				
Subscribed capital	25	315,888	153,388	153,388
Capital reserve	25	74,296	74,296	74,296
Remeasurement reserves	25	-1,574,722	-1,028,838	-1,028,957
Retained earnings	25	56,913	-29,691	-41,980
<b>Equity</b>		<b>-1,127,625</b>	<b>-830,845</b>	<b>-843,253</b>
Provisions for pensions and similar obligations	26	2,313,274	1,716,373	1,713,420
Other provisions	27	139,348	129,718	129,715
Financial liabilities	28	357,614	525,836	525,836
Trade payables	29	593	860	503
Other liabilities	30	5,674	568	568
Income tax obligations	31	30,869	30,869	30,869
<b>Non-current liabilities</b>		<b>2,847,372</b>	<b>2,404,224</b>	<b>2,400,911</b>
Other provisions	27	85,733	83,212	82,859
Financial liabilities	28	8,864	28,459	28,459
Trade payables	29	30,721	23,269	22,032
Other liabilities	30	99,034	98,921	118,376
Income tax obligations	31	100	100	100
<b>Current liabilities</b>		<b>224,452</b>	<b>233,961</b>	<b>251,826</b>
<b>Balance sheet total (equity and liabilities)</b>		<b>1,944,199</b>	<b>1,807,340</b>	<b>1,809,484</b>

<sup>7)</sup> Prior-year figures adjusted to reflect Group values

<sup>8)</sup> Prior-year figures are taken from Annual Report 2015

## DFS Deutsche Flugsicherung GmbH

### Consolidated statement of changes in equity

#### for the period 1 January 2016 to 31 December 2016

Note	Subscribed capital	Capital reserves	Revaluation reserves	Retained earnings	Other reserves	Total	Of which attributable to the Shareholder of the parent company
25	€000	€000	€000	€000	€000	€000	€000
<b>As at 1 Jan 2015<sup>9)</sup></b>	<b>153,388</b>	<b>74,296</b>	<b>-1,428,653</b>	<b>-153,277</b>	<b>0</b>	<b>-1,354,246</b>	<b>-1,354,246</b>
Payment of dividend to Shareholder	0	0	0	0	0	0	0
<b>Operating result</b>							
Net income	0	0	0	123,586	0	123,586	123,586
<b>Other comprehensive income</b>							
Remeasurement of the net defined benefit liability	0	0	399,359	0	0	399,359	399,359
Measurements from foreign currency translation	0	0	456	0	0	456	456
Tax effects	0	0	0	0	0	0	0
<b>As at 1 Jan 2015<sup>9)</sup></b>	<b>153,388</b>	<b>74,296</b>	<b>-1,028,838</b>	<b>-29,691</b>	<b>0</b>	<b>-830,845</b>	<b>-830,845</b>
Capital increase	162,500	0	0	0	0	162,500	162,500
Company disposals	0	0	0	17	0	17	17
Payment of dividend to Shareholder	0	0	0	0	0	0	0
<b>Operating result</b>							
Net income	0	0	0	86,587	0	86,587	86,587
<b>Other comprehensive income</b>							
Remeasurement of the net defined benefit liability	0	0	-556,044	0	0	-556,044	-556,044
Change in the fair value of available-for-sale financial assets	0	0	11,079	0	0	11,079	11,079
Measurements from foreign currency translation	0	0	-919	0	0	-919	-919
Tax effects	0	0	0	0	0	0	0
<b>As at 31 Dec 2016</b>	<b>315,888</b>	<b>74,296</b>	<b>-1,574,722</b>	<b>56,913</b>	<b>0</b>	<b>-1,127,625</b>	<b>-1,127,625</b>

<sup>9)</sup> Prior-year figures adjusted to reflect Group values

# DFS Deutsche Flugsicherung GmbH

## Consolidated cash flow statement

### for the period 1 January 2016 to 31 December 2016

Note	2016	2015 <sup>10)</sup>
33	€000	€000
Net income	86,587	123,586
of which dividend received	296	295
of which deferred income taxes	8,297	-6,460
of which income taxes paid (-) / received (+)	-4,208	48,966
Depreciation and amortisation on intangible assets and property plant and equipment	108,913	109,596
Gains (-) / losses (+) from the measurement of bonds	-689	2,232
Gains (-) from asset disposals	-99	-115
Losses (+) from asset disposals	628	1,121
Other non-cash expenses (+)	15	0
Other non-cash income (-) / expenses (+) from remeasurement	-545,883	399,815
Decrease (+) / increase (-) in trade receivables	9,724	-24,174
Increase (-) / decrease (+) in future receivables from construction contracts	-4,573	228
Decrease (+) in other receivables and assets	6,536	14,780
Decrease (+) / increase (-) in inventories	418	-73
Decrease (+) / increase (-) in current tax assets	4,082	-5,008
Increase (-) / decrease (+) in deferred tax assets	-2,551	1,735
Increase (+) / decrease (-) in provisions for pensions and similar obligations	596,882	-331,589
Increase (+) in other provisions	12,151	29,170
Increase (+) / decrease (-) in trade payables	7,184	-10,558
Increase (+) in other liabilities	57,302	16,017
Decrease (-) from the QTE transaction	-271	-147
Decrease (-) in income tax liabilities	0	-10,702
<b>Cash inflow from operating activities</b>	<b>336,356</b>	<b>315,914</b>
Payments (-) for investments in intangible assets and property, plant and equipment	-83,754	-78,663
Payments (-) for investments in financial assets	-1,765	0
Proceeds (+) from disposal of intangible assets and property, plant and equipment	3,111	1,532
Proceeds (+) from disposals of financial assets	761	989
Equity measurement of stakes in associated companies	390	1,218
<b>Cash outflow for investing activities</b>	<b>-81,257</b>	<b>-74,924</b>
Principal payment (-) on financial debt	-22,200	0
Taking on (+) financial debt	1,392	0
Payments (-) for finance leases	-30	-28
Amounts paid in by Shareholder	0	162,500
Financial result	923	-3,172
Interest received	4,784	6,224
Interest paid	-9,967	-9,777
<b>Cash outflow/inflow for financing activities</b>	<b>-25,098</b>	<b>155,747</b>
<b>Net change in cash and cash equivalents</b>	<b>230,001</b>	<b>396,737</b>
Cash and cash equivalents at the beginning of the year	714,246	317,509
<b>Cash and cash equivalents at the end of the year</b>	<b>944,247</b>	<b>714,246</b>

<sup>10)</sup> Prior-year figures adjusted to reflect Group values

## Notes to the consolidated financial statements 2016

### 1 General basis

- 1 The DFS Group is an air navigation service provider that operates internationally. The ultimate parent company is DFS Deutsche Flugsicherung GmbH (DFS), which has its Headquarters in 63225 Langen, Am DFS-Campus 10, Germany. The company is registered on the Commercial Register (HRB 34977) at the Local Court in Offenbach am Main, Germany, as a limited liability company (GmbH). DFS is wholly owned by the Federal Republic of Germany, represented by the Federal Ministry of Transport and Digital Infrastructure (BMVI).
- 2 The main business of the DFS Group is defined by the tasks set out in Section 27c of the German Aviation Act (LuftVG). Under this act, it is entrusted with providing air navigation services (a sovereign task). The Group management report contains information on the business activities and the object of the Group (see sections 1.1 and 1.3 in the Group management report).

### 2 Application of accounting standards

- 3 The regulations:

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Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards

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Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the Single European Sky (the service provision Regulation)

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Regulation (EC) No 1794/2006 of the Commission of 6 December 2006 laying down a common charging scheme for air navigation services

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Regulation (EU) No 1191/2010 of 16 December 2010 amending Regulation (EU) No 1794/2006 of the Commission on the development of a common charging scheme for air navigation services

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Regulation (EU) No 390/2013 of the Commission of 3 May 2013 laying down a performance scheme for air navigation services and network functions

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Regulation (EU) No 391/2013 of the Commission of 3 May 2013 laying down a common charging scheme for air navigation services

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oblige the DFS Group to draw up its consolidated financial statements as at 31 December 2016 in line with International Financial Reporting Standards (IFRS). It applies the standards of the International Accounting Standards Board (IASB) and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC) as recognised and endorsed by the European Union (EU).

- 4 These financial statements consider Regulation (EC) No 1606/2002, which is enacted in Section 315a of the German Commercial Code (HGB) by means of the Accounting Law Reform Act (BilReG) dated 4 December 2004.
- 5 These consolidated financial statements were prepared in accordance with the standards endorsed for use in the EU.
- 6 The business year of the Group corresponds to the calendar year (1 January to 31 December).
- 7 The Board of Managing Directors of DFS drew up the consolidated financial statements and approved them for submission to the Audit Committee of the Supervisory Board on 14 March 2017. Following an opinion of the audit committee, the Board of Managing Directors retroactively changed the consolidated financial statements as at 31 December 2016. In deviation from the consolidated financial statements drawn up on 15 March 2017, the amount of other liabilities to avoid charges-related disadvantages was raised. The associated change in employee expenses led to a reduction in net income and equity. The taxes on income and revenues were not materially affected by this change and therefore remain unchanged. On 11 April 2017, the Board of Managing Directors of DFS submitted the changed consolidated financial statements and Group management report to the Supervisory Board. The Supervisory Board discussed the consolidated financial statements and the opinion of the Audit Committee and issued a recommendation to the Shareholder to approve the consolidated financial statements. The Shareholder may amend the consolidated financial statements released by the Board of Managing Directors. The approved consolidated financial statements will be available via the electronic German Federal Gazette in accordance with Section 325(2a)(1) of the German Commercial Code (HGB) and on our website at [www.dfs.de](http://www.dfs.de).

### **3 Consolidation**

#### **3.1 Consolidation principles**

- 8 On initial consolidation of Group companies, the DFS Group measures the acquired identifiable assets, liabilities, contingent liabilities and deferred taxes at fair value at the acquisition date for business combinations (acquisition method) and compares these to the acquisition costs (purchase price allocation). The non-acquired share of the fair values of assets and liabilities is accounted for as minority interest by the Group. Acquisition-related costs are expensed in the periods in which the costs are incurred.
- 9 After the purchase price allocation, the Group recognises the remaining difference between the purchase price and the net assets acquired as goodwill. If the value of the net assets acquired exceeds the purchase price, the difference is recognised directly in profit or loss. The DFS Group recognises the differences from acquired minority interests directly in equity after the transfer of control. The acquisition costs of foreign entities acquired are translated into euro at the respective exchange rate at the date of acquisition.
- 10 The DFS Group eliminates the revenues, income and expenses as well as the receivables and liabilities stemming from transactions between the consolidated entities against each other. In addition, it eliminates the interim results from inter-company deliveries of non-current assets and inventories.

### 3.2 Scope of consolidation

- 11 For the first time, DFS, as the ultimate parent company, presented its consolidated financial statements 2016 including all subsidiaries, joint arrangements and associated companies.
- 12 The Group includes investments as subsidiaries if it has existing rights that give it the current ability to direct the relevant activities of an investee. Relevant activities are activities that significantly affect the investee's returns. Under IFRS 10, the DFS Group controls a subsidiary when it has exposure, or rights, to variable returns from its involvement with the investee and has the ability to use its power over the investee to affect the amount of these returns. In the absence of any other restrictive contractual arrangements, control is generally based on the direct or indirect majority of voting rights of the Group. For structured entities, control is based on contractual arrangements and not on the majority of voting rights.
- 13 Joint arrangements exist when the DFS Group jointly controls activities with a third-party based on a contract. IFRS 11 differentiates between joint ventures and joint operations. Depending on the characteristics, the Group accounts for the activities of joint ventures by applying the equity method and of joint operations proportionately based on rights and obligations.
- 14 The DFS Group measures associated companies where significant influence exists in accordance with IAS 28 using the equity method. It increases or decreases the carrying amount of the investment each year to reflect the investor's share of the net assets. Significant influence is indicated when DFS directly or indirectly holds between 20.00 percent and 50.00 percent of the voting rights in an investee. The assumption of influence can be reversed through a clear demonstration to the contrary.
- 15 Taken together, all other investments exert only an immaterial influence on total assets, revenues and net income from a Group perspective and are not material for the representation of the results and financial position of the DFS Group. The Group therefore does not include them in the consolidated financial statements. These companies are recognised at cost and disclosed under financial assets as investments at the Group.

<b>Companies included in the consolidated financial statements of the DFS Group</b>			
<b>Acronym</b>	<b>Company</b>	<b>Registered office</b>	<b>Shareholding in %</b>
DFS	DFS Deutsche Flugsicherung GmbH	Langen, Germany	Ultimate parent company
<b>Consolidated companies</b>			
DFS IBS	DFS International Business Services GmbH	Langen, Germany	100.00
DFS U-Kasse (benevolent fund)	DFS Unterstützungskasse GmbH (in liquidation)	Langen, Germany	100.00
DFS Energy	DFS Energy GmbH	Langen, Germany	100.00
DFS Aviation Services (formerly TTC)	DFS Aviation Services GmbH (formerly The Tower Company GmbH)	Langen, Germany	100.00
Eisenschmidt	R. Eisenschmidt GmbH	Egelsbach, Germany	100.00
KAT	Kaufbeuren ATM Training GmbH (since 15 April 2016)	Kaufbeuren, Germany	100.00
ANS	Air Navigation Solutions Ltd.	London, United Kingdom of Great Britain and Northern Ireland	100.00
<b>Associated companies</b>			
FCS	FCS Flight Calibration Services GmbH	Braunschweig, Germany	55.00
<b>Investments</b>			
GroupEAD	GroupEAD Europe S. L.	Madrid, Spain	36.00
BILSODA	BILSODA GmbH & Co. KG	Pullach, Germany	24.90
Investment through DFS International Business Services GmbH:			
ESSP SAS	European Satellite Services Provider Société par Actions Simplifiée	Toulouse, France	16.67
Investment through The Tower Company GmbH:			
TATS	Tower Air Traffic Services S. L.	Madrid, Spain	50.00
Investment through GroupEAD Europe S. L.:			
GEAD AP	GroupEAD Asia Pacific Ltd.	Wellington, New Zealand	20.00

- 16 The commercial business will be bundled and further expanded. In this regard, the DFS Board of Managing Directors decided to spin off the Aeronautical Solutions division and include it in the then TTC. The company now trades under a new name: DFS Aviation Services GmbH. The change to the articles of association was entered on the Commercial Register on 31 January 2017.

<b>Changes in scope of consolidation</b>						
	<b>As at 31 Dec 2015</b>	<b>Consolidation/ reconciliation</b>	<b>Additions</b>	<b>Disposals</b>		<b>As at 31 Dec 2016</b>
<b>Consolidated companies</b>	1	6	1	0		8
of which domestic	1	5	1	0		7
of which foreign	0	1	0	0		1
<b>Associated companies – measurement using equity method</b>	0	1	0	0		1
of which domestic	0	1	0	0		1
<b>Investments – measurement using cost method</b>	6	-2	0	0		4
of which domestic	5	-4	0	0		1
of which foreign	1	2	0	0		3
<b>Non-consolidated investments</b>	0	1	0	0		1
of which foreign	0	1	0	0		1

- 17 The addition under the consolidated companies relates to the foundation of Kaufbeuren ATM Training GmbH, Kaufbeuren, Germany. DFS has a 100.00 percent share in this company through its subsidiary DFS IBS. The entry on the Commercial Register Kaufbeuren was made on 4 May 2016.
- 18 At a meeting on 17 December 2014, DFS resolved to wind up DFS U-Kasse (the DFS benevolent fund) with effect from 31 December 2014. On 9 March 2015, the liquidation was registered at the Local Court in Offenbach, Germany, and subsequently published in the German Federal Gazette on 22 April 2015. After the creditors were officially notified, no claims had been made against DFS U-Kasse. The liquidators are terminating the running business and are taking all the steps necessary to carry out the liquidation. The remaining assets are being donated to charity.

### 3.3 Investments

Additional disclosures on investments						
	FCS	GroupEAD	BILSODA	ESSP SAS	TATS	GEAD AP
	€000	€000	€000	€000	€000	NZD'000
Shareholding in %	55.00	36.00	24.90	16.67	50.00	20.00
Additional shareholders	SKYNAV S.A., Belgium, 25.00% AUSTRO CONTROL, Austria, 20.00%	Entidad Pública Empresarial Aeropuertos Españoles y Navegación Aérea, Spain, 36.00% FREQUENTIS AG, Austria, 28.00%	AD Grundstücks-gesellschaft mbH & Co. KG, Germany, 75.10%; BILSODA Beteiligungs GmbH, General partner, Germany, 0.00%	ANSPs from Spain, Italy, United Kingdom and France each hold 16.67%; Portugal and Switzerland, 8.33% each	INDRA Sistemas S.A., Spain, 50.00%	Airways International Limited, New Zealand, 80.00%
Income from investments (previous year)	390 (1,218)	46 (45)	0 (0)	250 (250)	0 (0)	0 (0)
Current assets	2,292 <sup>11)</sup>	2,631 <sup>11)</sup>	307 <sup>11)</sup>	30,685 <sup>11)</sup>	1,000	2,482 <sup>13)</sup>
Non-current assets	6,492 <sup>11)</sup>	213 <sup>11)</sup>	7,216 <sup>11)</sup>	920 <sup>11)</sup>	--	0 <sup>13)</sup>
Current liabilities	1,593 <sup>11)</sup>	963 <sup>11)</sup>	381 <sup>11)</sup>	19,840 <sup>11)</sup>	--	1,484 <sup>13)</sup>
Non-current liabilities	3,612 <sup>11)</sup>	0 <sup>11)</sup>	4,166 <sup>11)</sup>	2,366 <sup>11)</sup>	--	295 <sup>13)</sup>
Equity	3,579 <sup>11)</sup>	1,881 <sup>11)</sup>	2,976 <sup>11)</sup>	9,399 <sup>11)</sup>	1,000 <sup>12)</sup>	703 <sup>13)</sup>
Net income	669 <sup>11)</sup>	129 <sup>11)</sup>	-98 <sup>11)</sup>	3,628 <sup>11)</sup>	--	693 <sup>13)</sup>
Revenues	9,078 <sup>11)</sup>	6,310 <sup>11)</sup>	711 <sup>11)</sup>	64,975 <sup>11)</sup>	--	6,638 <sup>13)</sup>
<sup>11)</sup> Values as at 31 December 2015 <sup>12)</sup> Equals paid-in equity as at 27 January 2011 <sup>13)</sup> Values as at 30 June 2015 in New Zealand Dollars						
Business year	1 Jan - 31 Dec	1 Jan - 31 Dec	1 Jan - 31 Dec	1 Jan - 31 Dec	1 Jan - 31 Dec	1 Jul - 30 Jun
Accounting standards	HGB	Spanish Commercial Code	HGB	French Commercial Code	Spanish Commercial Code	New Zealand GAAP

#### 3.3.1 FCS Flight Calibration Services GmbH

- 19 FCS carries out flight inspections of navigation and surveillance infrastructure, the validation of procedures in aviation as well as services and consulting. It also carries out preparatory work of all kinds for the conduct of flight inspections.
- 20 The registered capital of FCS amounts to €205 thousand (DM 400 thousand). Although DFS holds more than half of the shares (55.00%), individual provisions of the articles of association of FCS as well as the rules of internal procedure for the board prevent DFS from exercising control. It therefore assigns FCS to associated companies and measures the companies using the equity method.

- 21 FCS has been granted an intercompany credit line of €1.50 million by DFS to cover its liquidity needs as part of a cash pool agreement. This was not taken up in the business year. In addition, DFS IBS granted FCS four loans totalling €12.30 million to finance aircraft and inspection systems.
- 22 FCS operates an early warning system for risks, which allows possible and identified risks to be discussed regularly and suitable countermeasures to be taken. There are no risks to the going-concern status.

### 3.3.2 GroupEAD Europe S. L.

- 23 GroupEAD operates and develops a European aeronautical database for aeronautical information services. DFS holds a stake of 36.00 percent from its paid-in capital of €360 thousand in GroupEAD. Agreements at the shareholder meeting should be confirmed by a majority of the valid votes. DFS, therefore, cannot exercise sole control of GroupEAD. As the company is immaterial for the results and financial position of the DFS Group, the Group measures it at cost and discloses it under financial assets as an investment. There are no risks to the going-concern status.

### 3.3.3 BILSODA GmbH & Co. KG

- 24 BILSODA erects, rents, operates and administers a parking garage in Bremen. It is used by Airbus Operations GmbH and DFS.
- 25 With a partnership contribution of €2 thousand, DFS holds 24.90 percent in BILSODA. In addition, it financed its share of the construction costs of the parking garage with additional contributions of €1.99 million. The distribution of votes at the shareholder meeting and the individual agreements in the articles of association prevent DFS from exercising control. The investment does not have a material impact on the results and financial position of the DFS Group. The Group recognises BILSODA at cost as an investment under financial assets.
- 26 BILSODA operates an early warning system for risks, which allows possible and identified risks to be discussed regularly and suitable countermeasures to be taken. There are no risks to the going-concern status.

### 3.3.4 European Satellite Services Provider Société par Actions Simplifiée

- 27 ESSP SAS operates and develops a European satellite-based navigation system (EGNOS) to improve the signals of the US global positioning system (GPS). With a capital contribution of €167 thousand, DFS IBS holds 16.67 percent in ESSP SAS. There are no risks to the going-concern status. ESSP SAS has no material impact on the results and financial position of the DFS Group. The Group measures the company at cost and discloses it under financial assets as an investment.

### 3.3.5 Tower Air Traffic Services S. L.

- 28 Since 2011, DFS Aviation Services (formerly TTC) has had a stake of 50.00 percent in the joint venture TATS through a capital contribution of €0.50 million. The primary goal is the participation in public tenders for the provision of aerodrome control services in Spain. The company did not win the public tender for aerodrome control services in Spain and has no business activities at the moment. The investment does not have a material impact on the results and financial position of the DFS Group. The Group recognises TATS at cost and discloses it under financial assets as an investment.

### 3.3.6 GroupEAD Asia Pacific Ltd.

- 29 The company was registered on 12 February 2014 with effect from 1 July 2014. GroupEAD holds 250 shares in GEAD AP, which is equivalent to a 20.00-percent stake. It was founded by means of a shareholder loan in proportion to the shareholdings. The company provides services in aeronautical information management (AIM). This includes consultancy, training, content hosting and AIM operations. DFS does not currently include GEAD AP in the consolidated financial statements. GroupEAD intends to sell its stake in GEAD AP to Air New Zealand Ltd. in the first quarter of 2017.

## 4 Accounting policies

- 30 The DFS Group carries out accounting and measurement using uniform standards. It applies the historical cost principle, unless IFRS prescribes a different measurement principle. The associated disclosure is made with the respective accounting policy.

### 4.1 New and amended international financial reporting standards and interpretations

#### 4.1.1 Mandatory standards and interpretations

- 31 The DFS Group uses the following new and revised standards that are mandatory for business years beginning on or after 1 January 2016. The endorsement by the European Union is made with the publication of the standard in the Official Journal of the European Union.

Standard	Title	Publication IASB	EU endorsement	Effective date
IAS 16 / IAS 41	Property, plant and equipment / agriculture (Agriculture: bearer plants)	30 Jun 2014	23 Nov 2015	1 Jan 2016
IFRS 11	Joint arrangements (Accounting for acquisitions of interests in joint operations)	6 May 2014	24 Nov 2015	1 Jan 2016
IAS 16 / IAS 38	Property, plant and equipment / intangible assets (Clarification of acceptable methods of depreciation and amortisation)	12 May 2014	2 Dec 2015	1 Jan 2016
Catalogue	Improvements to international financial reporting standards (2012 to 2014)	25 Sep 2014	15 Dec 2015	1 Jan 2016
IAS 1	Presentation of financial statements (Disclosure initiative)	18 Dec 2014	18 Dec 2015	1 Jan 2016
IAS 27	Separate financial statements (Equity method in separate financial statements)	12 Aug 2014	18 Dec 2015	1 Jan 2016
IFRS 10 / IFRS 12 / IAS 28	Consolidated financial statements / disclosure of interests in other entities / investments in associates and joint ventures (Investment entities: consolidation exception)	18 Dec 2014	22 Sep 2016	1 Jan 2016

- 32 On 23 November 2015, the EU introduced the amendments to IAS 16 (Property, plant and equipment) and IAS 41 (Agriculture) with the title 'Agriculture: bearer plants' into European law. The amendments require that plants that are used solely to grow produce over several reporting periods should be accounted for in the same way as property, plant and equipment. The amendments are mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. As the business activities of the DFS Group do not cover the growing of produce, there was no impact on the consolidated financial statements.

- 33 On 24 November 2015, the EU adopted the amendments to IFRS 11 (Joint arrangements) with the title 'Accounting for acquisitions of interests in joint operations'. The amendments deal with the accounting for acquisitions of an interest in a joint operation when the operation constitutes a business. The amended standard is mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. There was no impact on the DFS consolidated financial statements.
- 34 On 2 December 2015, the EU adopted the amendments to IAS 16 (Property, plant and equipment) and IAS 38 (Intangible assets) with the title 'Clarification of acceptable methods of depreciation and amortisation'. It provides guidance on when a revenue-based method is considered appropriate to calculate the depreciation or amortisation of an asset. The amendments are mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. The changes had no impact on the results and financial position of the consolidated financial statements.
- 35 On 16 December 2015, the European Union endorsed the annual improvements to IFRS. Within the scope of this regular process, non-urgent corrections, inconsistencies and clarifications are made. These affected the following standards in particular: IAS 19 (Employee benefits); IAS 34 (Interim financial reporting); IFRS 5 (Non-current assets held for sale and discontinued operations) and IFRS 7 (Financial instruments). These improvements are mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. There was no impact on the consolidated financial statements as they only involve small adaptations and clarifications.
- 36 On 18 December 2015, the EU adopted the amendments to IAS 1 (Presentation of financial statements) with the title 'Disclosure initiative'. These adjustments aimed to improve disclosures as regards materiality, aggregation of line items, subtotals, the structure of the notes, important accounting policies and the separate presentation of the other comprehensive income (OCI) of associated companies and joint ventures. The amended standard is mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. The changes had no impact on the results and financial position of the consolidated financial statements.
- 37 Since 18 December 2015, the amendments to IAS 27 (Separate financial statements) with the title 'Equity method in separate financial statements' have applied under European law. The amendments allow the equity method as an accounting option for investments in subsidiaries, joint ventures and associates in an entity's separate financial statements. The amendments are mandatory for business years beginning on or after 1 January 2016. Earlier application is permitted. There was no impact on the consolidated financial statements.
- 38 On 22 September 2016, the EU endorsed the amendments to IAS 28 (Investment in associates and joint ventures), IFRS 10 (Consolidated financial statements) and IFRS 12 (Disclosure of interests in other entities) with the title 'Investment entities: applying the consolidation exception'. This project clarifies the accounting requirements for investment entities and provides relief under certain circumstances. It clarifies which subsidiaries of an investment firm have to be consolidated and which are to be measured at fair value through profit or loss. The amendments are mandatory for business years beginning on or after 1 January 2016; earlier application is permitted. The changes had no impact on the results and financial position of the consolidated financial statements.

## 4.1.2 Voluntary standards and interpretations

- 39 The IASB has published the following revised or new standards and interpretations. The standards have already been incorporated into European law as part of the endorsement procedure. They become effective from the point in time given and early application is permitted.
- 40 The Group is currently examining the impact of the new and amended standards on the Group's results and financial position. The standards will be applied when they become effective and early application will not be availed of.

Standard	Title	Publication IASB	EU endorsement	Effective date
IFRS 15	Revenue from contracts with customers	28 May 2014	22 Sep 2016	1 Jan 2018
IFRS 15	Including amendments to revenues from contracts with customers (postponement of date of first application)	11 Sep 2015	22 Sep 2016	1 Jan 2018
IFRS 9	Financial instruments	24 Jul 2014	22 Nov 2016	1 Jan 2018

- 41 On 22 September 2016, the EU adopted the new standard IFRS 15 (Revenue from contracts with customers) into EU law, including the changes to the date of first application. IFRS governs the recognition of revenue as regards nature, amount and timing (point in time / period of time). The standard provides a principles-based five-step model that has to be applied to all customer contracts. The standard also requires comprehensive disclosures. IFRS 15 supersedes IAS 11 (Construction contracts) and IAS 18 (Revenue) and their interpretations. The standard is mandatory for business years beginning on or after 1 January 2018. On first application, it has to be applied retrospectively, with certain practical expedients being available for the transition. Earlier application is permitted. The DFS Group, however, will not avail itself of this option. The Group does not currently see a significant impact on the consolidated financial statements as revenues are set by means of legal ordinances in the regulated business, meaning that revenue recognition is laid down by law. The commercial business is still not very significant when compared to the regulated business and the number of customers for air navigation services and energy provision is stable and manageable (airports, public customers).
- 42 On 22 November 2016, the European Commission adopted the new standard IFRS 9 (Financial instruments) into European law. IFRS 9 contains comprehensive changes to the recognition, measurement and presentation of financial instruments and the related disclosures. The classification of financial instruments is based on the business model and cash flow characteristics. Impairment is based on the premise of providing for expected losses (defaults). The rules on hedge accounting provide for a better reflection of risk management activities for managing non-financial risks. The new regulations replace IAS 39 (Financial instruments: recognition and measurement). IFRS 9 is mandatory for business years beginning on or after 1 January 2018. On first application, it has to be applied retrospectively, with transitional relief being available. Earlier application is permitted. The Group will not avail itself of this option and is analysing the impact. The DFS Group sees itself confronted with significant uncertainties when forecasting as the current low-interest-rate policy prevailing on the capital markets requires the use of new financial instruments. In addition, loans and credit lines are currently being reduced and the financing of occupational pensions is being changed.

#### 4.1.3 Published, though not yet mandatory, standards and interpretations

- 43 The IASB has issued the following standards which are not yet mandatory. Before these can be applied, they have to be recognised and endorsed by the EU. They become effective from the point of time given.
- 44 The DFS Group is currently examining the possible impact on the consolidated financial statements. It does not avail itself of the right of early application of new or amended standards.

Standard	Title	Publication IASB	Expected effective date	Relevant to DFS
<b>New standards</b>				
IFRS 14	Regulatory deferral accounts	30 Jan 2014	Not endorsed by EU	Yes
IFRS 16	Leases	13 Jan 2016	1 Jan 2019	Yes
<b>Amendments to existing standards and interpretations</b>				
IFRS 10 / IAS 28	Consolidated financial statements / investments in associates and joint ventures (Sale or contribution of assets between an investor and its associate or joint venture)	11 Sep 2014	Deferred indefinitely	Yes
IAS 12	Income taxes (Recognition of deferred tax assets for unrealised losses)	19 Jan 2016	1 Jan 2017	Yes
IAS 7	Statement of cash flows (Disclosure initiative)	29 Jan 2016	1 Jan 2017	Yes
IFRS 15	Revenue from contracts with customers (Clarifications)	12 Apr 2016	1 Jan 2018	Yes
IFRS 2	Share-based payment (Classification and measurement of share-based transactions)	20 Jun 2016	1 Jan 2018	No
IFRS 4	Insurance contracts (applying IFRS 9 with IFRS 4)	12 Sep 2016	1 Jan 2018	No
Catalogue	Improvements to international financial reporting standards (2014 to 2016)	8 Dec 2016	1 Jan 2017 / 1 Jan 2018	Yes
IAS 40	Investment property (Transfers of investment property)	8 Dec 2016	1 Jan 2018	Yes
IFRIC 22	Foreign currency transactions and advance consideration	8 Dec 2016	1 Jan 2018	Yes

## 4.2 Adjustments to prior-year values

45 All subsidiaries are being included in the consolidated financial statements for the first time. Below you can find a reconciliation of the prior-year figures for the statement of comprehensive income and balance sheet from the DFS annual report 2015 to the Group figures.

Statement of comprehensive income	Value reported in annual report	DFS Aviation Services (formerly TTC)	ANS	DFS Energy	Eisen-schmidt	DFS IBS	DFS U-Kasse (benevolent fund)	Consolidation/reconciliation	New value
31 Dec 2015	€000	€000	€000	€000	€000	€000	€000	€000	€000
Revenues	1,204,667	10,809	3,896	10,525	3,829			-2,700	1,231,026
Changes in inventory and other own work capitalised	311							-16	295
Other operating income	37,507	150	124	735	49	10	1	-5,298	33,278
Cost of materials and services	-3,254	-2,566		-3,398	-1,438			438	-10,218
Employee expenses	-843,050	-6,210	-930		-409			-58	-850,657
Depreciation and amortisation	-106,147	-44	-10	-3,335	-60				-109,596
Other operating expenses	-130,552	-897	-2,752	-3,266	-930	-35	-14	7,615	-130,831
Financial income	51,894	54				512		-2,698	49,762
Financial expenses	-94,523	-84		-1,095				1,505	-94,197
Profit transfer		-1,285		24	-1,041	2,326		-24	0
Income taxes	5,562		-66			-769		-3	4,724
<b>Net income (+) / net loss (-)</b>	<b>122,415</b>	<b>-73</b>	<b>262</b>	<b>190</b>	<b>0</b>	<b>2,044</b>	<b>-13</b>	<b>-1,239</b>	<b>123,586</b>
Remeasurement of the net defined benefit liability	399,099	260							399,359
Measurements from foreign currency translation	0		456						456
<b>Total result</b>	<b>521,514</b>	<b>187</b>	<b>718</b>	<b>190</b>	<b>0</b>	<b>2,044</b>	<b>-13</b>	<b>-1,239</b>	<b>523,401</b>

Balance sheet	Value reported in annual report	DFS Aviation Services (formerly TTC)	ANS	DFS Energy	Eisen-schmidt	DFS IBS	DFS U-Kasse (benevo-lent fund)	Consoli-dation/ reconcili-ation	New value
31 Dec 2015	€000	€000	€000	€000	€000	€000	€000	€000	€000
<b>Non-current assets</b>									
Goodwill	0							80	80
Intangible assets	215,816	29			99				215,944
Property, plant and equipment	492,495	122	108	43,598	114				536,437
Investment property	782								782
Investments in associated companies	0							1,738	1,738
Financial assets	67,191	6,866				12,321		-79,237	7,141
Other receivables and assets	53,228	2,456							55,684
Deferred tax assets	810							-16	794
<b>Current assets</b>									
Inventories	4,476			435	550			-100	5,361
Trade receivables	174,351	874	1,558		91			-3	176,871
Future receivables from construction contracts	2,201							101	2,302
Other receivables and assets	84,685	462	454	3,496	36	18,816		-23,134	84,815
Current tax assets	5,599							-455	5,144
Securities	144,902								144,902
Liquid funds	562,948	27	6,220	25	65	30	30		569,345
<b>Balance sheet total</b>	<b>1,809,484</b>	<b>10,836</b>	<b>8,340</b>	<b>47,554</b>	<b>955</b>	<b>31,167</b>	<b>30</b>	<b>-101,026</b>	<b>1,807,340</b>

## Notes 2016

Balance sheet	Value reported in annual report	DFS Aviation Services (formerly TTC)	ANS	DFS Energy	Eisen-schmidt	DFS IBS	DFS U-Kasse (benevo-lent fund)	Consoli-dation/ reconcil-iation	New value
31 Dec 2015	€000	€000	€000	€000	€000	€000	€000	€000	€000
<b>Equity</b>	-843,253	6,606	7,063	7,281	168	30,406	2	-39,118	-830,845
<b>Non-current liabilities</b>									
Provisions for pensions and similar obligations	1,713,420							2,953	1,716,373
Other provisions	129,715	2,953			7			-2,957	129,718
Financial liabilities	525,836			37,800				-37,800	525,836
Trade payables	503			357					860
Other liabilities	568	500	16					516	568
Income tax obligations	30,869								30,869
<b>Current liabilities</b>									
Other provisions	82,859		170	75	124	540	13	-569	83,212
Financial liabilities	28,459								28,459
Trade payables	22,032	68	107	932	130	2		-2	23,269
Other liabilities	118,376	709	935	1,109	526	219	15	-22,968	98,921
Income tax obligations	100		49					-49	100
<b>Balance sheet total</b>	<b>1,809,484</b>	<b>10,836</b>	<b>8,340</b>	<b>47,554</b>	<b>955</b>	<b>31,167</b>	<b>30</b>	<b>-101,026</b>	<b>1,807,340</b>

- 46 In the following notes on the statement of comprehensive income, balance sheet and other notes, the prior-year values have already been adjusted to reflect the change in scope of consolidation (Group values).

### 4.3 Use of assumptions and discretionary decisions

- 47 At the balance sheet date, the DFS Group makes annual forecasts of future developments for accounting and measurement purposes. The comprehensive set of assumptions, estimates and judgements made may have a considerable influence on the representation of the results and financial position of the DFS Group. They are based on historical experience and expectations about the occurrence of future events which appear commercially reasonable in the given circumstances. The Group continuously verifies its estimates and prognoses. If external conditions develop differently than expected, the actual amounts may vary from the estimates. Any variances from the actual circumstances are recognised in profit and loss when they occur. The key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date which have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next business year are described below.

#### 4.3.1 International financial reporting standards and interpretations

- 48 Revisions to accounting policies resulting from new and revised standards and interpretations are applied retrospectively, unless otherwise regulated. The prior-year statement of comprehensive income and the opening balance sheet for the prior-year period are adjusted as if the new accounting policies had always applied.

#### 4.3.2 Consolidation of affiliated companies and investments

- 49 The DFS Group includes all companies over which it exercises control under IFRS 10 in the consolidated financial statements. In the absence of any other restrictive contractual arrangements, a majority of voting rights results in control as a rule. For business combinations, the Group measures the acquired identifiable assets, liabilities and contingent liabilities at fair value at the acquisition date. After the purchase price allocation, the remaining difference between the purchase price and the proportionate net assets is recognised as goodwill.
- 50 Associated companies where the Group has significant influence in accordance with IAS 28 are measured using the equity method. Significant influence is indicated when the DFS Group directly or indirectly holds 20.00 percent or more of the voting rights in an investee. The assumption of influence can be reversed through a clear demonstration to the contrary.
- 51 The Group classifies joint arrangements under IFRS 11 as either joint ventures or joint operations. Depending on the characteristics, it accounts for the activities of joint ventures by applying the equity method, and accounts for joint operations proportionately, based on its rights and obligations.
- 52 Taken together, other investments are not material for the results and financial position of the DFS Group based on total assets, sales and net income when viewed from a Group perspective. The Group therefore does not include them in the consolidated financial statements. These companies are recognised at cost and disclosed under financial assets as investments at the Group. In selecting the materiality threshold of 5.00 percent, the Group based its decision on the recommendations contained in the German-language publication *Beck'sches IFRS-Handbuch – Kommentierung der IFRS/IAS (5th edition, 2016, section 2, items 57 to 67)*.

#### 4.3.3 Useful lives of property, plant and equipment

- 53 The DFS Group estimates the useful lives of property, plant and equipment based on their probable usability. As an orientation, DFS uses the official tax depreciation table (*AfA-Tabelle*) for general purpose assets (see letter from the German Federal Ministry of Finance (BMF) dated 15 December 2000 in the Federal Tax Gazette (*Bundessteuerblatt*) I 2000, page 1,532). Adjustments are made, as necessary, based on historical experience.

#### 4.3.4 Impairment of internally generated intangible assets

- 54 Impairment tests are carried out on internally generated intangible assets to determine the present value of expected future cash flows if there are objective indications of impairment. The Group evaluates current requirements due to changing market conditions as well as the progress of new intangible assets that are already in the development process.

#### 4.3.5 Impairment of financial assets

- 55 Impairment tests are carried out on financial assets to determine the present value of expected future cash flows if there are objective indications of impairment. The Group evaluates, in addition to other factors, the timing and extent of variances from cost, interest and exchange rates, the financial situation, the short-term business prospects as well as the general economic situation. If there is doubt about whether financial assets carried under the category "Held-to-maturity" will be settled in full, the DFS Group evaluates the need to impair the receivable using the estimated probability of default. When there are doubtful trade receivables, the Group evaluates the creditworthiness of customers and determines the allowance for doubtful accounts required based on probable default risks from information on insolvencies.

#### 4.3.6 Long-term service contracts

- 56 The DFS Group recognises revenues from long-term service contracts using the percentage-of-completion method. To determine the percentage of completion and thus the progress of performance, estimates are required of the material influencing factors such as costs incurred, contract income and contract risks. The expert departments responsible constantly review all the estimates and make any necessary adjustments.

#### 4.3.7 Pensions and similar obligations

- 57 The measurement of pensions and similar obligations is based on assumptions set out at the beginning of the business year). The discount rate at the balance sheet date is based on the market yield on high-quality corporate bonds with an average rating of AA using the standard procedure. The DFS Group uses bonds which, like the pension obligation, are measured in euro. The term of the corporate bonds corresponds to the term of the obligation. The interest rate for the expected return on plan assets corresponds to the discount rate. The percentage rates for the salary trend and the projected increase in benefits are based on past experience. Biometric data serve as the basis for the estimates of average life expectancy (mortality tables taken from Heubeck-Richttafeln 2005 G). Any change to these assumptions has an impact on the present value of the pension obligations. The Group recognises changes in value (particularly actuarial gains and losses) directly in equity as a remeasurement of defined benefit obligations under other comprehensive income.

#### 4.3.8 Other provisions

- 58 The measurement of other provisions requires judgements on estimated costs, expected cash flows and their maturities (see Note 4.6.16). The provisions relate to contracts, collective agreements, legal provisions or other obligations. They are recognised based on financial and actuarial calculations or historical experience using prudent commercial judgement. The premises underlying other provisions are reviewed annually and adjusted to current circumstances as necessary.
- 59 The discount rates for non-current provisions were adjusted to the development of interest rates in the business year.

#### 4.4 Currency translation

- 60 The DFS Group presents its consolidated financial statements in the reporting currency euro. Unless otherwise stated, all amounts are given in thousands of euro (€000) and rounded using the common method.
- 61 The Group translates foreign currency transactions into the functional currency of the individual unit using the rate prevailing at the date of the transaction. After initial recognition, foreign currency fluctuations for monetary items (liquid funds, receivables, liabilities) are recorded in profit or loss and non-monetary items (intangible assets; property, plant and equipment; inventories) are carried at historical cost using the exchange rate at the date of the transaction.
- 62 The DFS Group translates the financial statements of foreign subsidiaries (as well as the hidden reserves and obligations identified in purchase price allocations) using the concept of a functional currency under IAS 21. The current rate method (mean exchange rate at the balance sheet date) is used to translate assets, liabilities, contingent liabilities and other financial obligations. The translation of items for the income statement, however, uses a rate that approximates the exchange rate at the date of the transaction (average exchange rate). The exchange difference from the translation of equity and the differences from the translation into the presentation currency are recognised directly in other comprehensive income by the DFS Group.

<b>Currencies</b>	<b>ISO code</b>	<b>Standard conversion Mean exchange rate 31 Dec 2016</b>	<b>EMU conversion Asked price 31 Dec 2016</b>	<b>Standard conversion Mean exchange rate 31 Dec 2015</b>	<b>EMU conversion Asked price 31 Dec 2015</b>
	<b>1 euro =</b>				
US dollar	USD	1.05410	1.05710	1.08870	1.09170
Pound sterling	GBP	0.85618	0.85818	0.73395	0.73595
Swiss franc	CHF	1.07390	1.07590	1.08350	1.08550
Japanese yen	JPY	123.40000	123.64000	131.07000	131.31000

## 4.5 Items in the statement of comprehensive income

### 4.5.1 Income and expense recognition

63 Revenues and other operating income are recognised if:

- the provision of the service or the sale of goods involves the transfer of the material risks and rewards to the customer,
  - it is probable that future economic benefits will be generated from the transaction,
  - there is no right of disposition nor effective control
- and
- the level of revenues and the costs to sell incurred and expected can be quantified reliably.

64 Operating expenses are recognised in the income statement when the service is used or at the time the expenses are incurred.

65 The DFS Group accounts for revenues and expenses from long-term service contracts using the percentage-of-completion method. Revenues are recognised based on the stage of completion. The stage of completion results from the relationship between the contract costs incurred up to the balance sheet date and planned contract costs to this date. If the execution of the service contract requires a significant period of time, contract costs may also include direct borrowing costs. Variations in contract work, claims and incentive payments are included to the extent that they have been agreed with the customer. The contract costs are expensed using the matching principle. If the total contract costs exceed the total contract revenue, the expected loss is expensed immediately. If the results of a service contract cannot be estimated reliably, the probable revenues are recorded at the value of the costs incurred. Revenues from long-term service contracts accounted for using the percentage-of-completion method are reported by the Group under "Future receivables from construction contracts" in the balance sheet after deducting any payments received.

66 Interest income and expenses are recorded in accordance with the matching principle.

### 4.5.2 Impairment

67 Non-financial assets are reviewed at every balance sheet date to determine if there are indications of impairment. This involves comparing the carrying amount with the recoverable amount of the asset.

68 The carrying amount is the amount at which an asset is recognised after deducting any accumulated amortisation/depreciation and accumulated impairment losses thereon. The recoverable amount is the higher of the net realisable value and the value in use. The net realisable value is equal to the fair value less costs to sell. Value in use is the present value of the future cash flows expected to be derived from the continuing use of an asset and its disposal at the end of its useful life calculated using the discounted cash flow method. The Group calculates the present value with an interest rate before tax that reflects market conditions, calculated using the estimated zero-coupon curves of the German Bundesbank (the Svensson method is used). No risk premium in accordance with IAS 36.55(b) was used, as the assets are not exposed to any special risks.

69 If the recoverable amount of an asset is less than the carrying amount, an impairment is made to the recoverable amount. If a recoverable amount cannot be determined for the individual asset, then it is determined for the smallest cash generating unit to which the relevant asset can be allocated. Impairment losses are recognised directly in profit or loss in other operating expenses.

70 If, at a later date, the reasons for impairments made in previous years no longer apply, either in full or in part, the impairment loss is reversed accordingly. The reversal is limited to the carrying amount which would have applied if the impairments from the past were excluded and it is recognised in the income statement. A reversal of impaired goodwill is not permitted.

## **4.6 Items in the balance sheet**

### **4.6.1 Goodwill**

71 The DFS Group recognises goodwill from business combinations in accordance with IFRS 3 as an asset at cost at the acquisition date. Cost is the difference between the purchase price for the shares and the proportionate net assets acquired. The net assets are the difference between the fair values of the identifiable assets acquired and the liabilities assumed as well as the contingent liabilities. Acquisition-related costs are expensed.

72 There is no scheduled amortisation for goodwill. Goodwill is reviewed at every balance sheet date to determine if there are indications of impairment. Impairment testing involves comparing the carrying amount with the recoverable amount of the asset. The tests are conducted at the level of the cash generating unit. The recoverable amount is determined using recognised discounted cash flow methods. If the recoverable amount is lower than the carrying amount, an impairment loss is recognised down to the recoverable amount in accordance with IAS 36. Once goodwill has been impaired, it is not permitted to reverse the impairment in subsequent periods.

### **4.6.2 Intangible assets**

73 Assets acquired for valuable consideration are capitalised at cost when it is probable that the asset will generate future economic benefits for the company and the costs can be measured reliably.

74 Intangible assets that arose from own development activities are capitalised at cost. This presupposes that future economic benefits will be generated from the products. Production costs comprise all direct costs and an appropriate share of development-related overhead. Borrowing costs are capitalised as part of production costs in accordance with the requirements of IAS 23.

75 Prepayments are measured at cost. The prepayments are allocated to the respective intangible assets at the time of commissioning and written off over their useful life.

76 Intangible assets have a limited useful life. They are written off on a straight-line basis from the beginning of use as follows:

<b>Intangible assets</b>	<b>Useful life</b>
Concessions, industrial and similar property rights and assets as well as licences in such rights and assets	3 to 8 years
Internally generated intangible assets	8 years
Advance payments	Only after commissioning

77 Research expenses and associated government grants are recognised in profit or loss. Grants from airports or the Paul Ehrlich Institute are deducted from cost. EU grant funding from the Connecting Europe Facility programme is recognised as accruals and recorded in profit or loss over the useful lives of the underlying property, plant and equipment.

#### 4.6.3 Property, plant and equipment

78 Tangible assets acquired for valuable consideration are capitalised at cost when it is probable that the asset will generate future economic benefits for the company and the costs can be measured reliably.

79 Costs include the purchase price as well as all directly attributable costs required to bring the asset to the site and get it into the working condition as intended by management.

80 The DFS Group divides property, plant and equipment (in particular buildings) into the material economic components and reports them separately. Costs for the replacement of components and general overhaul are capitalised separately.

81 Production costs for internally generated property, plant and equipment comprise direct production costs (prime costs), an appropriate share of manufacturing overhead as well as the borrowing costs that are directly attributable up to the time of completion in accordance with IAS 23.

82 Government grants are deducted from the carrying amount of the corresponding asset. Grants from the Connecting Europe Facility programme are recognised as accruals and recorded in profit or loss over the useful lives of the underlying property, plant and equipment.

- 83 All assets (except for land) have a limited useful life and are written off on a straight-line basis from the beginning of use as follows:

<b>Property, plant and equipment</b>	<b>Useful life</b>
Building – Structure	40 years
Building – Façade	25 to 30 years
Building – Interior finishing	25 years
Building – Heating, ventilation, water	15 years
Building – Electronics	15 years
Outside facilities	5 to 19 years
Technical equipment	3 to 20 years
Operating and office equipment	3 to 20 years

- 84 Costs for repairs and ongoing maintenance of property, plant and equipment that have not led to an extension or material improvement are recognised under other operating expenses in the income statement.
- 85 When property, plant and equipment are sold, decommissioned or scrapped, any gains or losses from the difference between the net disposal proceeds and the amortised cost are recognised in other operating income or expenses.

#### 4.6.4 Investments accounted for using the equity method

- 86 The DFS Group recognises associated companies at cost using the equity method at the acquisition date. In subsequent periods, the carrying amount is adjusted to account for the associated changes in equity. If there are indications for an impairment of investments, the lower recoverable amount is used for the carrying amount as required by the regulations of IAS 36.

#### 4.6.5 Leases

- 87 The DFS Group concludes rental, tenancy and lease contracts with limited or unlimited terms to maintain flexibility as regards liquidity. It examines the contracts in accordance with IAS 17 to establish whether they are finance leases that have to be capitalised or operating leases to be expensed.
- 88 A lease is considered a finance lease when the lessor transfers all the material risks and rewards from ownership of an asset to the lessee (IAS 17.10). If these conditions are not met DFS classifies the lease as an operating lease.
- 89 For finance leases, the Group capitalises the lower of the present value of the minimum lease payments or the fair value of the leased asset. The payment obligations resulting from future lease instalments are recognised as a financial liability at the corresponding value of the leased asset. The minimum lease payments are split between a principal component and an interest component, with the interest being calculated using the effective interest rate method. The Group depreciates the leased asset over the shorter of the estimated useful life or the term of the lease.

90 The lease payments under operating leases are expensed over the term of the lease arrangement on a straight-line basis.

#### 4.6.6 Investment property

91 The DFS Group classifies property as investment property if it is exclusively held either for rental income or capital gains and is not used operationally. The amortised cost is used for measurement. The buildings are depreciated using the straight-line method.

#### 4.6.7 Financial instruments – Financial assets

92 Financial instruments relate to all contractual claims and obligations that directly or indirectly lead to an exchange of cash. Such an instrument is a contract which results in a financial asset for one party and either a financial liability or an equity instrument for the other party.

93 Financial assets are classified as "At fair value through profit or loss", "Held-to-maturity", "Loans and receivables" or "Available-for-sale" (see Note 34).

- The category "At fair value through profit and loss" comprises financial assets that are held for trading. Financial assets are assigned to this category if they were acquired with the intention to sell in the short term. Derivatives also belong to this category unless they qualify as hedging instruments. The DFS Group exclusively employs effective derivatives to hedge existing and future interest rate and currency risks under a hedging policy defined by the Board of Managing Directors and monitored by the Treasury department. While interest rate swaps are used to manage interest risk, cross-currency interest rate swaps hedge both interest rate risk and currency risk from financing in foreign currencies. Initial recognition as at the time of settlement and subsequent measurement occur at fair value. Financial instruments are deemed current if their realisation is expected within 12 months. Otherwise, they are disclosed as non-current. Derivative financial instruments with positive fair values are reported as receivables; those with negative fair values are reported as liabilities. All derivative financial instruments were accounted for without the creation of designated hedging relationships. The changes in the fair value between the reporting dates are recognised in profit or loss in the financial result.
- The category "Held-to-maturity" contains non-derivative financial assets with fixed or determinable payments, and a fixed term. The company must have the intention and ability to hold the financial instruments until maturity. Initial recognition occurs at fair value as at the time of settlement (plus direct transaction costs). Receivables denominated in a foreign currency are translated using the rate at the reporting date and recognised in the income statement. Subsequently, financial instruments are carried at amortised cost using the effective interest method. If there are doubts about the collectibility of receivables, they are written down to the lower recoverable amount based on the estimated probability of default. If the amount of the write-down declines in the following periods, the required reversals are made through the income statement. Interest income is considered in the financial result.

- The category "Loans and receivables" consists of financial assets with fixed or determinable terms of payment which are not traded on an active market. The assets are broken down into non-current and current remaining terms. Initial recognition occurs at fair value as at the time of settlement (plus direct transaction costs). Receivables denominated in a foreign currency are measured at the balance sheet date and recognised in the income statement. Subsequent measurement is at amortised cost using the effective interest rate method for interest-bearing and non-interest-bearing loans and receivables. If there are doubts about the collectibility of receivables, they are written down to the lower recoverable amount based on the estimated probability of default and the impairment loss is recognised. If the amount of the write-down declines in the following periods, the required reversals are made through the income statement. Interest income is reported in the financial result.
- The category "Available-for-sale" includes all other financial assets which cannot be allocated to any other category (such as financial assets or securities). Initial recognition occurs at fair value at the time of settlement (plus direct transaction costs). Subsequent measurement of this category occurs at fair value to the extent this can be reliably determined at the balance sheet date. Unrealised gains and losses from changes in fair value between the reporting dates are recognised directly in equity in other reserves. Upon the sale of financial assets or a permanent impairment of the market value below the carrying amount, other reserves are reversed and the cumulative gains and losses are recognised in profit or loss.

94 Financial assets are derecognised when the contractual rights to payments from the financial assets no longer exist or all risks and rewards have been transferred.

#### 4.6.8 Fair value

95 The fair value of financial instruments is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price). The fair value is measured based on the assumptions that knowledgeable market participants who are independent of each other and who are willing and able to enter into a transaction would make while acting in their economic best interest. Fair value is a market-based measurement, not an entity-specific measurement.

96 The fair value measurement assumes that the transaction is made in the principal market for the asset or liability. In the absence of such a market, the most advantageous market is to be used. This is the market that would maximise the amount that would be received to sell an asset or minimise the amount that would be paid to transfer a liability, taking into consideration transport and transaction costs. However, fair value measurements are not adjusted for transaction costs.

- 97 The DFS Group uses valuation techniques to determine fair value that are appropriate under the given circumstances and for which sufficient data are available. The techniques maximise the use of relevant observable inputs and minimise the use of unobservable inputs.

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**Inputs**

**Level 1            Directly observable inputs**

Observable (unadjusted) quoted prices in accessible active markets for identical assets or liabilities.

**Level 2            Indirectly observable inputs**

Inputs that are observable for assets or liabilities either directly or indirectly.

- a) Quoted prices for similar assets or liabilities in active markets.
- b) Quoted prices for identical or similar assets or liabilities in markets that are not active.
- c) Inputs other than quoted market prices that are observable.
- d) Market-corroborated inputs (values derived from market data using statistical methods).

**Level 3            Unobservable inputs**

Entity's own assumptions on the behaviour of a typical market participant.

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**Valuation techniques**

**Market approach**

This approach derives market multiples from a set of identical or comparable assets (matrix pricing).

**Cost approach**

This approach is based on the amount required to replace the service capacity of an asset (the current replacement cost).

**Income approach**

This method discounts future cash flows to a current amount (present value techniques, option pricing models, residual income method).

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- 98 The DFS Group undertakes reclassifications within the hierarchy at the end of the business year in which the changes took place.

- 99 Further information on the determination of the fair value can be found in Notes 17 and 34.

#### 4.6.9 Trade receivables

- 100 Trade receivables are carried at amortised cost. Due to the predominately short-term nature of trade receivables, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The Group therefore assumes that trade receivables can be sold for at least their carrying amounts in the short term and sets the fair value at the same level.
- 101 The DFS Group determines the allowance for doubtful accounts required based on probable default risks from information on insolvencies. It also demands security deposits from customers with relevant sales volumes when defined warning thresholds are exceeded. The allowances for doubtful accounts are recognised in a separate allowance account in the income statement. Such allowances are derecognised through the income statement should the reasons for the impairment no longer apply in subsequent periods. If a receivable that had already been written down is classified as uncollectible, it is written off completely.
- 102 Trade receivables in foreign currencies are measured at the reporting date and recognised in the income statement.

#### 4.6.10 Other receivables and assets

- 103 Receivables and other assets are carried at amortised cost. Due to the predominately short-term nature of other receivables and assets, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The Group assumes that the assets can be sold for at least their carrying amounts in the short term and sets the fair value at the same level.
- 104 Allowances for doubtful accounts are measured based on the probable default following an analysis of their age and maturity and information on insolvencies, and recognised as an expense on a separate allowance account.
- 105 Other receivables and assets in foreign currencies are measured at the reporting date and recognised in the income statement.

#### 4.6.11 Deferred taxes

- 106 IAS 12 regulates the treatment of deferred taxes using the liability method. Deferred tax assets and liabilities are recognised by the DFS Group for all temporary differences between the tax base of assets and liabilities and their carrying amounts in the Group balance sheet according to IFRS as well as for consolidation adjustments recognised in profit or loss. The differences are limited to those items whose changes influence taxable earnings.
- 107 Issues related to the calculation of charges are excluded (see Section 31b(3)(3) of the German Aviation Act (LuftVG)).
- 108 Deferred tax assets are also recognised for future claims to tax reductions resulting from tax loss carryforwards. Deferred tax assets for deductible temporary differences and for tax loss carryforwards are only recognised to the extent that there are future taxable profits which either the temporary differences or unused taxable losses can offset.
- 109 The computation of deferred taxes is based on the existing or applicable income tax rates in each country at the date of valuation. The income tax rate of 29.83 percent (previous year: 29.83%) is made up of a corporate income tax of 15.00 percent, a solidarity surcharge of 5.50 percent and a weighted average German municipal trade tax multiplier rate of

400.00 percent on a tax rate (*Steuermessbetrag*) of 3.50 percent. The effect of changes in tax rates on deferred tax assets and liabilities is reflected in the income tax expense for the period in which the law was changed.

- 110 Deferred tax assets and liabilities are netted if permitted under law and the receivables and payables are against the same tax authority.
- 111 Deferred tax assets and liabilities are not discounted.

#### 4.6.12 Liquid funds

- 112 Liquid funds include cash, cash accounts as well as short-term money market investments and certificates of deposit at credit institutions. Cash and cash equivalents are carried at amortised cost. Due to the predominately short-term nature of cash and cash equivalents, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The Group therefore sets the fair values at the same level as the carrying amounts.
- 113 Liquid funds in foreign currencies are converted at the closing rate.
- 114 Overdrafts taken up are reported by the DFS Group in the balance sheet as liabilities to credit institutions under current financial liabilities.

#### 4.6.13 Inventories

- 115 Inventories are carried at cost based on the weighted average method or at production cost.
- 116 Production costs comprise direct production costs (especially direct materials and direct labour) as well as an appropriate share of the necessary material and manufacturing overhead. Administrative expenses and costs of employee assistance programmes are included to the extent they can be allocated to production. Financing costs are not recognised as part of production costs.
- 117 Subsequent measurement occurs at the lower of deemed cost and net realisable value. Inventory risks resulting from the duration of storage or impaired usability led to write-downs upon determination of the net realisable value. If the reasons for a write-down no longer apply, the write-down is reversed. Lower values at the reporting date due to lower prices on sales and purchase markets were taken into account.

#### 4.6.14 Other reserves

- 118 This item relates to changes recognised directly in equity, provided they are not based on capital transactions with the Shareholder. This includes, in particular, the changes in fair value of the available-for-sale financial assets and their associated tax effects.

#### 4.6.15 Provisions for pensions and similar obligations

- 119 Defined benefit plans are measured in accordance with IAS 19 using the projected unit credit method on the basis of actuarial reports at the balance sheet date. This requires, in particular, assumptions to be made about long-term salary trends and average life expectancy. The premises on salary trends are based on historical trends and take into account country-specific interest and inflation levels. Biometric data serve as the basis for the estimates of average life expectancy (mortality tables taken from Heubeck-Richttafeln 2005 G).
- 120 The rate used to discount pension obligations is determined by reference to market yields at the end of the reporting period on high-quality fixed-rate corporate and treasury bonds. The discount rate is an actuarial assumption and is set at the beginning of each business year. With the help of this interest rate, the Group calculates the net interest result, for which the net pension obligation or net defined benefit liability is multiplied by the interest rate. The net pension obligation results from the deduction of plan assets with their fair value from the gross pension obligation and is therefore a net amount. In the event of an asset surplus (i.e. a net defined benefit asset), a corresponding procedure is applied. Before offsetting, the DFS Group reports the net interest result in the financial result under financial income and financial expenses.
- 121 Remeasurements of the net defined benefit liability are recognised directly in equity in other comprehensive income. This includes in particular the actuarial gains and losses resulting from changes in expectations as regards the estimates made at the beginning of the year compared with the actual development during the business year. In addition, a portion of the actual return on plan assets at the end of the year in excess of the expected return on plan assets at the beginning of the year is recognised directly in equity. The remeasurements recognised in equity cannot be recognised in profit or loss in the following periods.
- 122 The service cost is made up of the current and past service costs. The latter reflects the change in pension obligations as a consequence of plan adjustments and plan curtailments. It is recognised directly in profit or loss when incurred in the statement of comprehensive income and reported under employee expenses.
- 123 The development of plan assets is made up of the contributions, payments and income from a matched reinsurance contract. The reinsurance contract requires an investment in the general cover fund of the insurer in accordance with Section 54 of the German Insurance Supervision Act (VAG) as well as a separate fund-based investment in accordance with Section 54b of the VAG. This fund-based investment allows the DFS Group's contract with the insurer to have a higher equity ratio to gain a long-term increase in return compared with the return provided by the general cover fund of the insurance consortium. The fund investment is restricted to a maximum of half of the whole capital reserve of the reinsurance contract. The expectations placed on the fund investment are formulated by a strategy commission. It considers the latest expectations for the capital markets and risk issues. Pension obligations for which there are plan assets are netted against the fair value of these plan assets.

- 124 No provisions are recognised for defined contribution plans. The level of contributions at the DFS Group is dependent on the income relevant to pension calculations. The payments for defined contribution plans are expensed when due and reported as part of employee expenses.

#### 4.6.16 Other provisions

- 125 Other provisions are recognised for past events that result in present obligations to third parties. These provisions must be capable of being estimated reliably and must lead to an outflow of resources in the future with a probability of at least 50.00 percent. A provision is recognised with the settlement amount, which represents the highest probability of occurrence based on best estimates and under consideration of all discernible risks.
- 126 The DFS Group expects the majority of the other provisions to fall due in the next one to thirty years. Some of the individual provisions may involve time periods of up to thirty years. Therefore, uncertainties remain as to the timing and concrete amount of the expenses. Nevertheless, the Group expects to utilise the full amount of the provisions (100.00%) and expects that the outflow of economic benefits will equal the amount set aside in the provisions.
- 127 Provisions for obligations which in all probability will not lead to a reduction in assets in the subsequent year are discounted at prevailing market rates and carried at the present value of the expected outflow of resources, provided the interest effect is material. The discount rates are based on the yields on debt securities outstanding issued by residents, public debt securities and listed Federal securities corresponding to their remaining term as published by the German Bundesbank. In addition to these yields, a company-internal risk premium of 0.25 percent is added.
- 128 If a change in an estimate results in a reduction of the obligation, then the provision is reversed proportionally and the income reported under other operating income.

#### 4.6.17 Financial instruments – financial liabilities

- 129 Financial liabilities generally give rise to a claim for repayment in cash or in the form of another financial asset. The classification is subdivided into the categories "At fair value through profit or loss" and "Amortised cost" (see Note 34).
- Financial liabilities classified as "At fair value through profit and loss" (derivative financial instruments) are held exclusively for trading. Their initial and subsequent recognition are at fair value. The changes in fair value between the reporting dates and interest expenses are recognised in profit or loss in the financial result.
  - The category "Amortised cost" contains all other financial liabilities which cannot be allocated to another category. The initial recognition is at fair value, including transaction costs directly connected with the issuance of the liability. Subsequent measurement of liabilities is at amortised cost using the effective interest rate method for liabilities with high or low interest rates. Bonds and debenture loans are carried at amortised cost using the effective interest method. Due to the predominately short-term nature of trade payables and other liabilities, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The DFS Group therefore sets the fair values at the same level as the carrying amounts. Amounts derecognised and the allowance for doubtful accounts are disclosed in profit and loss and interest expenses in the financial result.
- 130 For financial liabilities with maturities up to one year, the fair value corresponds to the carrying amount. If the maturity is longer than one year, the fair value is calculated by discounting the settlement value at a risk-free rate.
- 131 Liabilities denominated in a foreign currency are converted using the rate at the reporting date.

## Notes to the statement of comprehensive income

### 5 Revenues

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Revenues from air navigation services	1,117,267	1,193,302
Other revenues	52,481	37,724
	<b>1,169,748</b>	<b>1,231,026</b>

#### Revenues from air navigation services

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
En-route charges	899,312	962,281
Terminal charges	211,488	233,839
Payments to German MET Service (DWD) and Ministry of Transport (BMVI) from terminal charges	-729	-701
Carry-over from the traffic and inflation variance of the current year	-55,960	-45,804
Carry-over from the traffic and inflation variance of previous years	-13,269	-33,880
<b>Revenues from en-route and terminal charges</b>	<b>1,040,842</b>	<b>1,115,735</b>
Reimbursements by the State for military flights and facilities	61,580	60,956
Reimbursements by the State for exempted flights	6,500	6,500
Aeronautical publications	4,241	7,022
Flight inspection services	2,717	2,226
Other air navigation services	1,387	863
<b>Revenues from air navigation services</b>	<b>1,117,267</b>	<b>1,193,302</b>

### 6 Changes in inventory and other own work capitalised

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Changes in inventory of finished goods	-50	5
Other own work capitalised (primarily internally generated IT systems)	3,070	290
	<b>3,020</b>	<b>295</b>

## 7 Other operating income

	2016	2015
	€000	€000
Income from QTE transaction (exchange rate gains)	8,656	12,697
R&D project funding by the EU Commission and German Federal and regional ministries recognised in the income statement	25,602	7,272
Income from derecognition of liabilities	6,077	5,859
Income from reversal of provisions	1,774	759
Remaining	4,451	6,691
	<b>46,560</b>	<b>33,278</b>

## 8 Cost of materials and services

	2016	2015
	€000	€000
Raw materials, consumables used and purchased goods	5,934	4,697
Purchased services (flight inspection and consulting services)	5,940	5,521
	<b>11,874</b>	<b>10,218</b>

## 9 Employee expenses

	2016	2015
	€000	€000
Wages and salaries <sup>14)</sup>	609,177	593,630
Expenses for IFRS pensions	140,981	165,282
Social security costs and expenses for assistance	65,467	64,745
Cost of personnel belonging to the Federal Aviation Office (LBA)	22,879	27,000
	<b>838,504</b>	<b>850,657</b>

<sup>14)</sup> See Note 44.1 for the remuneration of the Board of Managing Directors

- 132 Besides the usual outlays for wages, salaries and social security expenses for DFS personnel, this item also includes the costs charged by the Federal Aviation Office (LBA) for personnel belonging to the LBA.

<b>Average annual number of employees</b>		
	<b>2016</b>	<b>2015</b>
Salaried staff	5,225	5,272
Soldiers released from regular service	207	214
Wage-earners	23	25
Technical and commercial students and apprentices	84	93
<b>DFS Group staff</b>	<b>5,539</b>	<b>5,604</b>
Employees covered by the collective agreement for the public service (TVöD)	41	49
Established civil servants	140	162
<b>Personnel belonging to the Federal Aviation Office (LBA), Office Air Navigation Services</b>	<b>181</b>	<b>211</b>
	<b>5,720</b>	<b>5,815</b>

## 10 Depreciation and amortisation

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Intangible assets	37,685	35,764
Property, plant and equipment	71,198	73,802
Investment property	30	30
	<b>108,913</b>	<b>109,596</b>

- 133 The impairment tests carried out in the business year resulted in no impairment charges being recognised for intangible assets, investment property and financial assets.

## 11 Other operating expenses

	2016	2015
	€000	€000
Spare parts and maintenance	46,401	46,832
Occupancy costs	16,332	16,068
Rent and leasing costs	8,591	8,447
Costs of external personnel	10,571	8,711
Other employee expenses	6,254	4,307
Legal and consultancy costs	4,984	6,755
Travel costs	6,128	5,866
Telecommunication	6,602	7,367
Costs from previous years	1,288	1,041
Vehicle costs	3,302	3,403
Asset disposals	842	734
Insurance policies	2,683	2,290
Magazines, journals, stationery	971	1,029
Advertising costs	777	894
Entertainment expenses	1,003	839
Costs of monetary transactions	1,626	766
Write-downs and write-offs of receivables	512	1,560
Expenses from QTE transaction (exchange rate losses)	8,685	12,818
Remaining	1,346	1,104
	<b>128,898</b>	<b>130,831</b>

## 12 Financial result

	2016	2015
	€000	€000
Income from fund assets to finance retirement obligations	51,556	40,011
Gains from the financial assets of the investment firm	40,802	0
Interest income from QTE transaction	1,512	1,492
Other interest income	705	874
Income from foreign currency translation	691	3
Income from investments	296	295
Interest income from operating taxes	2	4,114
Result from fair value adjustment of derivatives	0	2,973
<b>Financial income</b>	<b>95,564</b>	<b>49,762</b>
Expenses from discounting provisions	-91,934	-83,335
Expenses from the financial assets of the investment firm	-33,916	0
Other interest expense	-6,956	-7,416
Interest expense from QTE transaction	-1,226	-1,214
Result from fair value adjustment of derivatives	-331	0
Expenses from securities	-5	0
Expenses from foreign currency translation	0	-2,232
<b>Financial expenses</b>	<b>-134,368</b>	<b>-94,197</b>
<b>Financial result</b>	<b>-38,804</b>	<b>-44,435</b>

### Additional disclosures on the financial result

	2016	2015
	€000	€000
Interest result from financial instruments determined using the effective interest method not classified in the category "At fair value through profit or loss"	-6,858	-7,666
Interest income from impaired financial assets	312	314
Impairment losses recognised directly in equity from the category "Available-for-sale"	11,079	0

### 13 Income taxes

	2016	2015
	€000	€000
Current income taxes	8,297	-6,460
Deferred income taxes	-2,549	1,736
	<b>5,748</b>	<b>-4,724</b>

- 134 Current income taxes relate to corporation taxes, including the solidarity surcharge, and German municipal trade taxes. The computation of income taxes at DFS is based on applicable tax regulations in connection with Section 31b(3)(3) of the German Aviation Act (LuftVG). For the other Group subsidiaries, the trade and corporation tax laws and regulations are of relevance.

#### Breakdown of effective income taxes

	2016	2015
	€000	€000
Corporation tax	3,915	11,326
Corporation tax from previous years	0	-15,700
Solidarity surcharge	201	597
Municipal trade tax	4,085	10,925
Municipal trade tax from previous years	0	-13,678
Foreign taxes	96	70
	<b>8,297</b>	<b>-6,460</b>

- 135 In addition to the tax liabilities from the current business year, possible estimated additional tax demands are also included to the extent that they might result from the current tax audit.
- 136 DFS owes taxes as the dominant enterprise for the dependent enterprise DFS Energy. Therefore, the deferred taxes of the dependent enterprise are reflected in the dominant enterprise. The spin-off of the energy plant, which is assigned to the areas relevant to air navigation charges, into DFS Energy led to a continuation of the tax measurement for this legal entity. Therefore, in determining taxes, the special situation as regards air navigation charges at DFS is also taken into consideration at DFS Energy. This does not lead to taxable temporary differences in value between the IFRS and the tax accounts.
- 137 In the Group, the tax groups are DFS, DFS IBS and ANS. DFS IBS is the dominant enterprise for the dependent enterprises DFS Aviation Services (formerly TTC), Eisenschmidt and KAT, and therefore owes the taxes. Hence, the deferred taxes of the subordinated companies are reflected in the dominant enterprise (DFS IBS). The sum of the results of the two groups and ANS differ from the consolidated Group result as the expenses and income among the individual Group companies are eliminated in a different manner than that used for the groups for tax purposes.

<b>Reconciliation from expected to current income tax expense:</b>		
	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Net income before income taxes	92,335	118,862
Expected tax rate (in %)	29.83	29.83
Expected income tax expense	27,543	35,456
Tax expense not relating to the period under review	0	-29,378
Reduction in the tax base under Section 31b German Aviation Act (LuftVG)	-20,515	-13,264
Variances in municipal trade tax	421	438
Foreign taxes	96	70
Deferred tax expense	-2,549	1,736
Variances from consolidation	752	218
<b>Current income tax expense</b>	<b>5,748</b>	<b>-4,724</b>
<b>Effective tax rate (in %)</b>	<b>6.22</b>	<b>0.00</b>

**Deferred taxes by balance sheet item**

	Deferred tax assets		Deferred tax liabilities	
	2016 €000	2015 €000	2016 €000	2015 €000
Intangible assets	0	0	8,665	9,062
Property, plant and equipment	2,725	2,311	891	1,153
Available-for-sale securities	0	0	5,623	268
Receivables and other assets	0	0	4,896	18,554
Provisions for pensions and similar obligations	796,432	620,843	0	0
Other provisions	24,378	26,392	677	636
Liabilities	2,755	3,116	532	549
	<b>826,290</b>	<b>652,662</b>	<b>21,284</b>	<b>30,222</b>
Impact due to Section 31b LuftVG (until 2012: methodology n + 2 used)				
Intangible assets	0	0	-8,665	-9,062
Property, plant and equipment	-2,497	-2,238	-955	-1,216
Available-for-sale securities	0	0	-5,623	-268
Receivables and other assets	0	0	-31	-13,867
Provisions for pensions and similar obligations	-778,806	-610,000	0	0
Other provisions	-24,375	-26,373	-677	-636
Liabilities	-490	-375	0	0
	<b>-806,168</b>	<b>-638,986</b>	<b>-15,951</b>	<b>-25,049</b>
Other allowances	-11,444	-7,709	0	0
Netting	-5,333	-5,173	-5,333	-5,173
DFS Aviation Services (formerly TTC)	0	0	0	0
	<b>3,345</b>	<b>794</b>	<b>0</b>	<b>0</b>

138 There were no issues which resulted in deferred tax assets not being recognised.

## Notes to the balance sheet

### 14 Goodwill

	Cost				As at 31 Dec
	As at 1 Jan	Additions	Disposals	Transfers	
2015	€000	€000	€000	€000	€000
R. Eisenschmidt GmbH	80	0	0	0	80
	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>
2016	€000	€000	€000	€000	€000
R. Eisenschmidt GmbH	80	0	0	0	80
	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>

	Amortisation					Carrying amount As at 31 Dec
	As at 1 Jan	Additions	Disposals	Transfers	As at 31 Dec	
2015	€000	€000	€000	€000	€000	€000
R. Eisenschmidt GmbH	0	0	0	0	0	80
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>
2016	€000	€000	€000	€000	€000	€000
R. Eisenschmidt GmbH	0	0	0	0	0	80
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>

- 139 The goodwill from the acquisition of R. Eisenschmidt GmbH results from the difference between the purchase price and the fair value of the net assets at the acquisition date.
- 140 The regular impairment tests of goodwill showed no indication that an impairment loss under IAS 36 had to be recognised.

#### Underlying assumptions for the conduct of impairment tests for goodwill

	31 Dec 2016	31 Dec 2015
<b>R. Eisenschmidt GmbH</b>		
Planning period	2017 to 2021	2016 to 2019
Planned revenues per year in €000	4,100	3,690
Revenue growth in %	0.00	0.00
EBT development in %	-4.36 to +9.88	-16.52 to +17.52
Investment ratio in %	0.00	0.00

## 15 Intangible assets

	Cost				As at 31 Dec
	As at 1 Jan	Additions	Disposals	Transfers	
	€000	€000	€000	€000	
<b>2015</b>					
Concessions, rights and licences	561,706	8,244	-755	17,937	587,132
Internally generated intangible assets	52,158	0	0	0	52,158
Assets under construction (AUC)	62,424	19,394	0	-17,944	63,874
	<b>676,288</b>	<b>27,638</b>	<b>-755</b>	<b>-7</b>	<b>703,164</b>
<b>2016</b>					
Concessions, rights and licences	587,132	7,750	-6,209	2,111	590,784
Internally generated intangible assets	52,158	2,754	0	0	54,912
Assets under construction (AUC)	63,874	19,068	0	-2,096	80,846
	<b>703,164</b>	<b>29,572</b>	<b>-6,209</b>	<b>15</b>	<b>726,542</b>

	Amortisation					Carrying amount As at 31 Dec
	As at 1 Jan	Additions	Disposals	Transfers	As at 31 Dec	
	€000	€000	€000	€000	€000	
<b>2015</b>						
Concessions, rights and licences	421,743	31,602	-484	-7	452,854	134,278
Internally generated intangible assets	30,204	4,162	0	0	34,366	17,792
Assets under construction (AUC)	0	0	0	0	0	63,874
	<b>451,947</b>	<b>35,764</b>	<b>-484</b>	<b>-7</b>	<b>487,220</b>	<b>215,944</b>
<b>2016</b>						
Concessions, rights and licences	452,854	34,054	-5,011	0	481,897	108,887
Internally generated intangible assets	34,366	3,631	0	0	37,997	16,915
Assets under construction (AUC)	0	0	0	0	0	80,846
	<b>487,220</b>	<b>37,685</b>	<b>-5,011</b>	<b>0</b>	<b>519,894</b>	<b>206,648</b>

- 141 The regular impairment tests of intangible assets showed no indication that an impairment loss under IAS 36 had to be recognised.
- 142 Intangible assets for which there is a contractual obligation to accept but which do not yet come under the economic power of disposition of the DFS Group are shown in Note 38.2.
- 143 The DFS Group has not assigned any intangible assets nor pledged them as collateral. It freely controls these assets.

**Individually material intangible assets**

	Carrying amount	Remaining useful life	Share of total carrying amount
	31 Dec 2016		31 Dec 2016
	€000	in years	in %
P1/ATCAS software including release	42,992	8	20.80
VAFORIT software	34,748	1 - 2	16.82
iCAS software	9,052	3	4.38
PSS software	6,166	1 - 8	2.98
	<b>92,958</b>		44.98
<b>Total carrying amount</b>	<b>206,648</b>		100.00

**Capitalisation of borrowing costs for intangible assets**

	31 Dec 2016	31 Dec 2015
Borrowing costs in €000	1,974	1,877
Capitalisation rate in %	2.94	2.95

**16 Property, plant and equipment**

	Cost				
	As at 1 Jan	Additions	Disposals	Transfers	As at 31 Dec
	€000	€000	€000	€000	€000
<b>2015</b>					
Land and buildings	695,536	3,681	-2,244	45	697,018
Technical equipment (plant) and machinery	1,103,937	37,225	-37,202	8,787	1,112,747
Operating and office equipment	83,350	4,355	-3,575	453	84,583
Assets under construction (AUC)	11,075	5,764	0	-9,278	7,561
	<b>1,893,898</b>	<b>51,025</b>	<b>-43,021</b>	<b>7</b>	<b>1,901,909</b>
<b>2016</b>					
Land and buildings	697,018	2,196	-622	250	698,842
Technical equipment (plant) and machinery	1,112,747	34,097	-64,467	2,881	1,085,258
Operating and office equipment	84,583	2,627	-3,136	191	84,265
Assets under construction (AUC)	7,561	15,262	0	-3,337	19,486
	<b>1,901,909</b>	<b>54,182</b>	<b>-68,225</b>	<b>-15</b>	<b>1,887,851</b>

	Depreciation					Carrying amount	
	As at	Additions	Disposals	Transfers	Currency differences	As at	As at
	1 Jan					31 Dec	31 Dec
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Land and buildings	387,206	22,756	-1,909	0	0	408,053	288,965
Technical equipment (plant) and machinery	885,947	46,093	-35,313	-35	0	896,692	216,055
Operating and office equipment	59,264	4,952	-3,531	42	0	60,727	23,856
Assets under construction (AUC)	0	0	0	0	0	0	7,561
	<b>1,332,417</b>	<b>73,801</b>	<b>-40,753</b>	<b>7</b>	<b>0</b>	<b>1,365,472</b>	<b>536,437</b>
<b>2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Land and buildings	408,053	21,557	-376	0	0	429,234	269,608
Technical equipment (plant) and machinery	896,692	44,562	-62,324	-54	0	878,876	206,382
Operating and office equipment	60,727	5,078	-3,109	54	-2	62,748	21,517
Assets under construction (AUC)	0	0	0	0	0	0	19,486
	<b>1,365,472</b>	<b>71,197</b>	<b>-65,809</b>	<b>0</b>	<b>-2</b>	<b>1,370,858</b>	<b>516,993</b>

#### Capitalisation of borrowing costs for property, plant and equipment

	31 Dec 2016	31 Dec 2015
Borrowing costs in €000	268	122
Capitalisation rate in %	2.94	2.95

#### Research and development costs

	31 Dec 2016	31 Dec 2015
	€000	€000
Expenses for research and development	42,943	44,272
- of which research costs recognised in the income statement	40,195	44,272
- of which capitalised additions in assets under construction	2,748	0
Capitalised borrowing costs on development costs	7	0
Development costs in assets under construction as at 31 December	2,754	0
Scheduled depreciation of development costs based on the degree of completion notified	3,631	4,162
R&D project funding by the EU Commission and German Federal and regional ministries deducted from cost	0	0

- 144 The DFS Group concludes rental and lease contracts for land and buildings, technical facilities and machines as well as vehicles. The material rewards and risks are borne by the respective contracting party. There are no additional risks from these contracts for the Group. It does not make use of purchase price options, rather the items are transferred when the lease matures. Vehicles are leased for one year without an option to extend.

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**Maturity of operating leases**

	Up to 1 year	1 to 5 years	More than 5 years	Total
	€000	€000	€000	€000
2016	8,679	10,915	6,508	26,102
2015	8,134	19,316	17,572	45,022

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**Expenses and income recognised in the statement of comprehensive income**

	2016	2015
	€000	€000
Minimum lease payments from operating leases	8,591	8,447

- 145 The carrying amount of property, plant and equipment which the Group does not freely control (finance leases) amounts to €14 thousand (previous year: €41 thousand).
- 146 The QTE transaction was terminated except for the remaining shell structure (for additional disclosures see Note 21).
- 147 Property, plant and equipment for which there is a contractual obligation to accept but which do not yet come under the economic power of disposition of the Group are shown in Note 38.2.
- 148 The DFS Group has not assigned any property, plant and equipment nor pledged them as collateral. It freely controls these assets.
- 149 Compensation of €23 thousand (previous year: €153 thousand) for third parties for property, plant and equipment that was impaired, irrecoverably lost or decommissioned was recognised in the income statement.

## 17 Investment property

	Cost				As at 31 Dec €000
	As at 1 Jan €000	Additions €000	Disposals €000	Transfers €000	
	2015 Property in Braunschweig	1,210	0	0	
2016 Property in Braunschweig	1,210	0	0	0	1,210

	Depreciation					Carrying amount As at 31 Dec €000
	As at 1 Jan €000	Additions €000	Disposals €000	Transfers €000	As at 31 Dec €000	
	2015 Property in Braunschweig	398	30	0	0	
2016 Property in Braunschweig	428	30	0	0	458	752

- 150 The DFS Group rents a building, including the land, in Braunschweig, Germany, to FCS, which uses this land for its own operational purposes.

### Expenses and income recognised in the statement of comprehensive income

	2016 €000	2015 €000
Rental income	125	121
Depreciation	30	30
Repairs	0	0

- 151 The property is depreciated over the useful life of 40 years using the straight-line method. The latest review of the rental and land values revealed no indications of an impairment under IAS 36. The values remained unchanged compared with the previous year. The appraisal dated 3 December 2012 demonstrates the recoverability of the carrying amounts.

### Appraisal on the value of the property

Date of appraisal	3 December 2012	22 October 2008
Date to which appraisal applies	1 December 2012	1 October 2008
Procedure	DCF method	DCF method
Market value	€980 thousand	€1,030 thousand
Fair value	€980 thousand	€1,013 thousand
Property yield ( <i>Liegenschaftszinssatz</i> ) of the city of Braunschweig	7.60%	6.30%
Initial discount rate	8.25%	7.75%

- 152 The fair value of investment property is determined by an external independent property valuer who possesses the relevant professional qualification and up-to-date experience with the location and type of property to be valued.

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#### Valuation technique

Discounted cash flow method: The calculation of the fair value is based on current rental rates considering various factors such as the standard land values, property yield, other operating expenses, risk of default on rents, remaining useful life of the building, maintenance risk as well as current property developments.

#### Unobservable inputs

Discount rate, risk of default on rents, other operating expenses

#### Level

3

#### Relationship between inputs and fair value

The estimated fair value would increase if

- the risk-adjusted discount rate was lower
  - the risk of default on rents was lower
  - other operating costs were lower
- 

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#### Reconciliation of the fair value level 3

	31 Dec 2016	31 Dec 2015
	€000	€000
As at 1 Jan	980	980
Ongoing gains (+) and losses (-)	0	0
Gains (+) and losses (-) recognised in other comprehensive income	0	0
Additions (+) and disposals (-)	0	0
Transfers in and out of levels	0	0
As at 31 Dec	980	980

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- 153 The DFS Group is not contractually obliged to conduct repairs, maintenance or improvements. However, it is authorised to make material changes to the premises and the rental object as well as necessary repairs and maintenance without the approval of FCS. There are no other contractual obligations or restraints on disposition.

## 18 Financial assets

	Cost				As at 31 Dec
	As at	Additions	Disposals	Remea- surement	
	1 Jan				
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Investments in associated companies	2,588	0	0	-850	1,738
Investments	3,027	0	-141	0	2,886
Loans to associated companies	5,103	0	-848	0	4,255
	<b>10,718</b>	<b>0</b>	<b>-989</b>	<b>-850</b>	<b>8,879</b>
<b>2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Investments in associated companies	1,738	0	0	-390	1,348
Investments	2,886	0	-56	0	2,830
Loans to associated companies	4,255	0	-731	0	3,524
Derivative financial instruments	0	1,765	0	0	1,765
	<b>8,879</b>	<b>1,765</b>	<b>-787</b>	<b>-390</b>	<b>9,467</b>

	Impairment					Carrying amount As at 31 Dec
	As at	Additions	Disposals	Transfers	As at	
	1 Jan				31 Dec	
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Investments in associated companies	0	0	0	0	0	1,738
Investments	0	0	0	0	0	2,886
Loans to associated companies	0	0	0	0	0	4,255
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,879</b>
<b>2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Investments in associated companies	0	0	0	0	0	1,348
Investments	0	0	0	0	0	2,830
Loans to associated companies	0	0	0	0	0	3,524
Derivative financial instruments	0	0	0	0	0	1,765
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,467</b>

**Associated companies accounted for using the equity method**

	31 Dec 2016	31 Dec 2015
	€000	€000
As at 1 Jan	1,738	2,588
Proportionate net income	0	368
Dividends received	-390	-1,218
As at 31 Dec	1,348	1,738

**Investments**

	Group EAD	BILSODA	ESSP SAS	TATS	Total
	€000	€000	€000	€000	€000
Shareholding in %	36.00	24.90	16.67	50.00	
Share capital	360	0	167	500	1,027
Liable capital ( <i>Hafteinlagen</i> )	0	2	0	0	2
Other contributions	0	1,801	0	0	1,801
Carrying amount 31 Dec 2016	360	1,803	167	500	2,830

Loans to associated companies	Term	Nominal value	Nominal interest rate	31 Dec 2016	31 Dec 2015
		€000	in %	€000	€000
<b>FCS</b>					
Loan 1 Flight instrument system	2006 - 2015	2,100	4.00	0	0
Loan 2 Aircraft	2006 - 2017	5,000	4.00	519	928
Loan 3 Flight instrument system 2	2009 - 2019	900	5.25	245	331
Loan 4 Aircraft 2	2009 - 2025	4,300	5.25	2,760	2,996
		<b>12,300</b>		<b>3,524</b>	<b>4,255</b>

154 There were no indications of a need to impair as required by IAS 36.

155 Derivative financial instruments relate to capital investments held for trading. These are traded on active markets with published market prices, which are used for measurement (see Note 23 for additional disclosures).

## 19 Trade receivables

<b>Due dates of trade receivables</b>				
	<b>Up to 1 year</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Total</b>
	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
2016	167,148	0	0	167,148
2015	176,871	0	0	176,871

<b>Aged-list</b>		
	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>
Carrying amount	167,148	176,871
of which not impaired and		
- not yet overdue	157,478	170,129
- up to 30 days overdue	3,833	3,905
- 31 to 60 days overdue	2,764	1,004
- 61 to 180 days overdue	1,826	1,012
- more than 180 days overdue	1,247	821
of which impaired	0	0

- 156 Trade receivables were written down to the amount that could be recovered as soon as information on the insolvency of customers was available. There are no indications that the debtors whose receivables were overdue will not be able to fulfil their obligations.

<b>Development of allowances</b>		
	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>
As at 1 Jan	8,220	9,338
Additions	588	2,324
Utilisation	0	0
Reversal	-2,774	-3,442
As at 31 Dec	6,034	8,220

**Expenses (-) and income (+) recognised in the statement of comprehensive income**

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Derecognition and write-off of receivables	-3,020	-2,848
Income from payment of receivables previously written off	202	34
Income from other derecognitions	119	136
Additions to specific allowances	-588	-2,324
Income from reversal of specific allowances	2,774	3,442

- 157 At the balance sheet date, there were no trade receivables in foreign currencies (previous year: none). Due to the low impact on the results, there was no currency valuation in the previous year.
- 158 The DFS Group did not pledge any receivables as securities for loans.

**20 Future receivables from construction contracts****Due dates of future receivables from construction contracts**

	Up to 1 year	1 to 5 years	More than 5 years	Total
	€000	€000	€000	€000
<b>31 Dec 2016</b>				
Gross value	6,774	0	0	6,774
Prepayments	0	0	0	0
Carrying amount	6,774	0	0	6,774
<b>31 Dec 2015</b>				
Gross value	2,302	0	0	2,302
Prepayments	0	0	0	0
Carrying amount	2,302	0	0	2,302

**Expenses and income recognised in the statement of comprehensive income**

	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Contract revenue recognised in the business year	5,363	1,515
Costs incurred in the business year	4,301	1,225
Profit earned for ongoing projects	1,062	290
Amounts withheld	0	0

## 21 Other receivables and assets

	31 Dec 2016	31 Dec 2016	31 Dec 2015	31 Dec 2015
	Total	Remaining term more than 1 year	Total	Remaining term more than 1 year
	€000	€000	€000	€000
QTE transaction	53,856	46,695	57,375	52,145
Capitalised value	2,813	2,813	2,456	2,456
Receivables from EU grant aid	2,763	2,763	0	0
Interest receivables	1,718	0	1,931	0
Under-recovery	105	0	46,485	105
Derivative financial instruments	0	0	899	899
Receivables from investments <sup>15)</sup>	0	0	44	0
Remaining	13,191	65	24,860	79
Other receivables and assets (financial)	74,446	52,336	134,050	55,684
Remaining other receivables and assets (non-financial)	7,495	0	5,449	0
Advance payments	699	0	1,000	0
	<b>82,640</b>	<b>52,336</b>	<b>140,499</b>	<b>55,684</b>

<sup>15)</sup> Disclosures on netting in Note 30

### Aged-list

	31 Dec 2016	31 Dec 2015
	€000	€000
Carrying amount	82,640	140,499
of which not impaired and		
- not yet overdue	82,640	140,499
- up to 30 days overdue	0	0
- 31 to 60 days overdue	0	0
- 61 to 180 days overdue	0	0
- more than 180 days overdue	0	0
of which impaired	0	0

159 No receivables served as securities for loans or as collateral for other liabilities.

160 The qualified technological equipment (QTE) transaction with foreign investors was basically terminated in 2012. The DFS Group agreed with the remaining contracting parties to keep up the domestic cash flows. The restructuring of the contractual relationships allowed financial drawbacks to be avoided. The remaining purely inner-German shell structure comprises a claim against NORD/LB and a liability against KfW Kreditanstalt für Wiederaufbau (see Note 28). The new loan contracts concluded have fixed interest and principal payments and a term until 2 January 2022. The Group receives the claims from the ongoing rent from NORD/LB without having to provide a consideration. It bears the default risk of NORD/LB during the term. The rating agencies Moody's and Fitch Ratings awarded NORD/LB an Aa1 or AAA rating for long-term guaranteed liabilities. For the liability, temporally limited collateral was pledged to KfW in the form of the assignment of the receivables against NORD/LB. This hedge was dissolved in 2013 after a one-off payment. The termination of the QTE transaction led to a significant improvement in the risk position for the creditors of the DFS Group.

## 22 Inventories

	31 Dec 2016	31 Dec 2015
	€000	€000
Goods in stock	4,657	4,975
Emission rights	386	386
	<b>5,043</b>	<b>5,361</b>

### Expenses and income recognised in the statement of comprehensive income

	2016	2015
	€000	€000
Impairment of raw materials and consumables used	7	13
Impairment of finished goods and goods for resale	0	0

## 23 Securities

	31 Dec 2016	31 Dec 2015
	€000	€000
Securities	557,243	144,902

161 Securities relate to available-for-sale capital investments, both fixed-rate and variable-rate. There are active markets with published market prices, which are used for measurement.

162 In the business year, the DFS Group invested in a fund (legal name: ATCP-UI-Fond) through an investment firm. The Group's overall investment goal is to reduce the risk of loss on a yearly basis compared with the strategic asset allocation while earning a return consistent with the allocation over the market cycle. The DFS Group expects a long-term return on the whole portfolio of 2.40 percent per year on average over the investment horizon of three to five years. The capital investments made are distributed in the consolidated financial statements over the corresponding financial assets and liabilities.

163 The DFS Group defines asset allocation bands for the minimum and maximum exposure for each assets class: cash, government bonds, corporate bonds and equities.

164 The Group also classifies various risk categories:

- Market risk (beta risk) is defined as the loss in value from the change in value of an asset class.
- Hedge error is defined as the loss resulting if the assigned benchmark cannot be replicated exactly in the asset class.
- Tracking error is the risk that there is a divergence between the behaviour of the underlying portfolio and the behaviour of the benchmark.

165 The investment firm reviews these risks regularly. The exposures are adjusted once a month as needed and hedged using derivatives, futures and options.

## 24 Liquid funds

	31 Dec 2016	31 Dec 2015
	€000	€000
Cash in hand and cheques	42	34
Cash at bank	386,962	569,311
	<b>387,004</b>	<b>569,345</b>

## 25 Equity

	31 Dec 2016	31 Dec 2015
	€000	€000
Subscribed capital	315,888	153,388
Capital reserve	74,296	74,296
Remeasurement reserves	-1,574,722	-1,028,838
Retained earnings	56,913	-29,691
	<b>-1,127,625</b>	<b>-830,845</b>

- 166 The registered capital of the DFS Group amounts to €315,887,500.00 euro (three hundred and fifteen million eight hundred and eighty seven thousand five hundred euro). There are 3,158,875 shares with a nominal value of €100.00 each held by the sole Shareholder, the Federal Republic of Germany, represented by the Federal Ministry of Transport and Digital Infrastructure (BMVI). The shares may not be sold or encumbered. Additional shareholders may not be admitted.
- 167 With the notarial recording dated 3 November 2015, the Shareholder of the Group decided to raise the registered capital in the form of a cash contribution firstly by €35.64 to €153,387,600.00 for smoothing purposes and subsequently by an additional €49,999,900.00 to €203,387,500.00. The registration of the capital increase on the Commercial Register was made on 25 January 2016.
- 168 In 2016, the registered capital was raised by €450,000,000.00 to €653,387,500.00 in return for issuing 4,500,000 shares with a nominal value of €100.00 each. The contributions for the new shares are made in January 2016, 2017, 2018 and 2019 (a quarter in each year). The registration of this capital increase was made on 1 March 2016.
- 169 The capital reserves consist of other payments of the Shareholder (Section 272(2)(4) German Commercial Code, HGB) and serve to strengthen the share capital.
- 170 Other reserves are used for changes recognised directly in equity that are not based on capital transactions with the Shareholder.
- 171 The Shareholder approved the consolidated financial statements, the Group management report and the financial statements as at 31 December 2015 under the German Commercial Code (HGB) in resolution no. 152 dated 29 April 2016 and decided to offset the loss in 2015 under HGB against retained earnings:

Uses of net income as at	31 Dec 2015	31 Dec 2014
	€000	€000
Net loss (-) / profit (+)	-138,190	73,458
Gross dividend to the Shareholder	0	0
Offsetting against retained earnings	-138,190	73,458

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**Other comprehensive income after taxes contained in the reserves**

	Remeasurement reserves	Other reserves	Other comprehensive income
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Remeasurement of the net defined benefit liability	-556,044	0	-556,044
Change in the fair value of available-for-sale financial assets	11,079	0	11,079
Measurements from foreign currency translation	-919	0	-919
	<b>-545,884</b>	<b>0</b>	<b>-545,884</b>
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Remeasurement of the net defined benefit liability	399,359	0	399,359
Change in the fair value of available-for-sale financial assets	0	0	0
Measurements from foreign currency translation	456	0	456
	<b>399,815</b>	<b>0</b>	<b>399,815</b>

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## 26 Provisions for pensions and similar obligations

172 Provisions for pensions are recognised exclusively for defined benefit plans for active and former employees.

173 The level of detail presented in the numbers reported in the following sections is based on the collective agreements and individual contracts relevant to the DFS Group:

Acronym	Contents
VersTV (Pensions) <sup>16)</sup>	This collective agreement relates to the pensions for the staff employed at the DFS Group.
ÜVersTV (Transitional payments)	This collective agreement relates to the transitional payments for air traffic controllers and flight data assistants employed at the DFS Group.
KTV (Insurance)	This collective agreement covers the health and long-term care insurance for the staff employed at the DFS Group.
Miscellaneous	The accessory obligations for death grants and the deferred compensation scheme for pensions (old) are grouped under "Miscellaneous".

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<sup>16)</sup> The defined benefit obligations under the VersTV continue to be split in Note 26.6 between the final salary benefits and the benefits linked to average career earnings.

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## 26.1 Pension plans

- 174 There are various forms of pension provision available to the employees of the DFS Group which are largely governed by collective agreements.
- 175 Under the collective agreement covering pensions (VersTV), employees who began employment at the company by 31 December 2004 receive old-age, disability and surviving dependant's benefits (defined benefit plans) linked to the respective final salary of the employee (Plan A). However, employees who entered service after 1 January 2005 receive benefits under the collective agreement covering pensions which are linked to average career earnings (Plan B). Under this system, a pension component is calculated each year based on the respective income and the old-age pension is determined based on the sum of the annual pension components.
- 176 Air traffic controllers and flight data assistants receive a transitional retirement benefit linked to their final salary (ÜVersTV). This is to cover the period from the end of their operational activity until the earliest possible receipt of the statutory pension.
- 177 Both plans (VersTV and ÜVersTV) are financed by reinsurance policies that are recognised as plan assets under IAS 19.8. The reinsurance contract requires an investment in the general cover fund of the insurer in accordance with the investment principles of Section 54 of the German Insurance Supervision Act (VAG) and a separate fund-based investment created for part of the assets under Section 54b of the VAG. The latter, however, is limited to a maximum of half of the actuarial reserve.
- 178 DFS pays an increased employer contribution for health insurance for the employees who were previously employed as established civil servants with the former Federal Administration of Air Navigation Services (BFS) and the Federal Aviation Office (LBA). This compensates over the entire active period of employment and in retirement for the fact that these staff are no longer covered by the German civil service welfare provisions for healthcare.
- 179 The DFS Group pays death grants to qualifying next of kin of active employees. The grants are equal to the previous remuneration and are paid for two and half months from the month following the month in which the employee passed away.
- 180 In addition, there are individual contractual benefits approved in 2005 which are based on the salary conversion model for exempt employees. The amount of the pension capital underlying the benefit is based on the salary converted with a return of 6.00 percent.
- 181 The DFS Group provides the employees of the UK Group company with defined contribution pensions.
- 182 There were no changes, curtailments or settlements to the pension plans in the business year.

## 26.2 Actuarial assumptions

In %	2017	2016	2015	2014	2013
Discount rate	1.70	2.40	2.00	3.60	2.90
Expected return on plan assets	1.70	2.40	2.00	3.60	2.90
Salary trend	2.50	2.50	2.50	3.50	3.50
Projected increase in benefits <sup>17)</sup>	1.00/ 1.25/ 2.00	1.00/ 1.25/ 2.00	1.00/ 1.25/ 2.00	1.00/ 1.25/ 2.00	1.00/ 1.25/ 2.00

<sup>17)</sup> 1.25 percent for the guaranteed adjustment for staff with benefits under VersTV 2009  
2.00 percent for staff with benefits under VersTV 1993 (static reference)

## 26.3 Sensitivity analysis

- 183 The sensitivity analysis takes into account the respective change of one individual assumption compared to the reference value, which is made up of the sum of the individual present values of the pension obligations from the VersTV (Pensions), ÜVersTV (Transitional payments) and KTV (Insurance). The remaining parameters of the original calculations remain unchanged. This ensures that potential correlation effects are excluded.

Changes to the actuarial assumptions		Impact on the defined benefit obligations	
		€000	In %
Present value of defined benefit obligations at 31 Dec 2015		3,821,451	
Discount rate	Increase by 0.5 percentage points	-357,620	-9.36
	Decrease by 0.5 percentage points	417,310	10.92
Salary trend	Increase by 0.5 percentage points	174,533	4.57
	Decrease by 0.5 percentage points	-160,553	-4.20
Present value of defined benefit obligations at 31 Dec 2016		4,559,891	
Discount rate	Increase by 0.5 percentage points	-470,231	-10.31
	Decrease by 0.5 percentage points	513,488	11.26
Salary trend	Increase by 0.5 percentage points	214,888	4.71
	Decrease by 0.5 percentage points	-197,549	-4.33

- 184 The VersTV dated 21 August 2009 sets out a fixed annual adjustment of 1.25 percent. This means there is no sensitivity calculation for the pension progression.
- 185 For a specific group of people, the adjustment logic is set out in the VersTV 2005. This collective agreement has an adjustment of 2.00 percent per year as well as a lagging correction for inflation that follows a three-year rhythm. As this represents an immaterial portion of the overall obligation, the DFS Group does not conduct a sensitivity calculation for the pension progression.

## 26.4 Risks

186 The pension obligations and the plan assets are subject to fluctuations over time. The reasons for these fluctuations and the associated risks arise from the usual actuarial risks and the financial risks in connection with the plan assets.

### 26.4.1 Demographic risks

187 As a large part of the defined benefit obligations are paid for the whole life and also include survivor's pensions, earlier entitlement and longer periods of benefit payment can lead to higher pension obligations, higher benefit payments and higher retirement benefits than expected.

### 26.4.2 Market price risks

188 The amount of the net obligation from occupational pensions is exposed to interest rate risk and is particularly influenced by the discount rate. The rate is determined by reference to market yields at the reporting date on high-quality fixed-rate corporate and treasury bonds. The current low level of interest rates has resulted in a comparatively high obligation. Potential fluctuations in the pension obligations are considered when managing the plan assets. However, the rise in the pension obligations can only be partly offset by the rise in the market values of plan assets. The low interest rate level means that substantial returns cannot be earned, which reduces the speed at which the assets for occupational pensions may grow.

189 The investment form chosen by DFS Aviation Services (formerly TTC) offers a balanced mix of risk and return. The insurance contracts offer a guaranteed rate of 2.25 percent for old contracts and 1.75 percent for new contracts, including the grant of a terminal bonus.

### 26.4.3 Liquidity risks

190 The daily liquidity of the DFS Group is monitored by the Treasury department and is managed with the help of short-term (< year) and medium-term liquidity plans.

### 26.4.4 Inflation risks

191 The Group distinguishes in its pension plans between benefits that are based on the respective final salary of the employee and benefits based on the career average plan. With the latter, the pension component is directly tied to the respective income. A rise in salaries tied to inflation would therefore lead to a rise in the pension obligations.

## 26.5 Duration and expected pension and contribution payments

192 The DFS Group has concluded reinsurance policies with an insurance consortium consisting of four life insurance companies to secure its obligations from the collective agreement on pensions and transitional payments. This ensures that the benefits payable can actually be paid when the insured event arises. The capital investment of the consortium is made under the provisions of the German Insurance Supervision Act (VAG), which requires a separate investment in a fund-based pension insurance policy under Section 54b of the VAG. All consortium members to the group insurance policy are also members of the guarantee fund of the *Protector Lebensversicherungs-Aktiengesellschaft*, ensuring that the interests of the insured are protected in the event of an insolvency of one of the companies (additional information can be found at: [www.protector-ag.de](http://www.protector-ag.de)).

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### Expected due date of undiscounted payments

	Up to 1 year	2 to 5 years	6 to 15 years
	€000	€000	€000
Estimated pension payments <sup>18)</sup>	96,710	457,997	1,612,971
- of which reinsured with the insurance consortium	89,444	425,438	1,511,920
Expected employer contributions to plan assets	232,750	1,024,636	2,127,430

<sup>18)</sup> From the Aon-Hewitt detailed forecast 2016 to 2031 dated 18 May 2016

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193 The weighted duration of the pension obligations amounts to 21.9 years (previous year: 20.7 years) as at 31 December 2016.

## 26.6 Defined benefit obligations

	VerstV (Pensions)	ÜVerstV (Transitional payments)	KTV (Insurance)	Other	Total
	€000	€000	€000	€000	€000
<b>31 Dec 2015</b>					
As at 1 Jan 2015	2,791,366	990,486	223,039	5,827	4,010,718
Current service cost	108,065	52,799	2,183	122	163,169
Interest expense	55,431	19,438	4,398	112	79,379
Retirement benefits paid	-40,514	-35,952	-6,431	-392	-83,289
Actuarial gains (-) and losses (+)	-285,241	-56,948	-669	-52	-342,910
- of which changed parameters	-261,411	-51,110	-15,973	-154	-328,648
- of which experience-based adjustments	-23,830	-5,818	15,305	102	-14,241
<b>Present value of defined benefit obligations</b>	<b>2,629,107</b>	<b>969,823</b>	<b>222,520</b>	<b>5,617</b>	<b>3,827,067</b>
- of which benefits based on final salary					
Retirement payments	2,408,009	-	-	-	-
One-time payments	0	-	-	-	-
- of which benefits based on career average plan					
Retirement payments	221,098	-	-	-	-
One-time payments	0	-	-	-	-
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
As at 1 Jan 2016	2,629,107	969,823	222,520	5,617	3,827,067
Current service cost	93,301	48,941	2,021	115	144,378
Interest expense	62,584	22,793	5,258	131	90,766
Retirement benefits paid	-44,152	-36,555	-7,072	-596	-88,375
Actuarial gains (-) and losses (+)	481,570	91,875	18,017	291	591,753
- of which changed parameters	495,400	94,072	27,196	256	616,924
- of which experience-based adjustments	-13,830	-2,197	-9,179	35	-25,171
<b>Present value of defined benefit obligations</b>	<b>3,222,410</b>	<b>1,096,877</b>	<b>240,744</b>	<b>5,558</b>	<b>4,565,589</b>
- of which benefits based on final salary					
Retirement payments	2,873,914	-	-	-	-
One-time payments	0	-	-	-	-
- of which benefits based on career average plan					
Retirement payments	348,496	-	-	-	-
One-time payments	0	-	-	-	-

## 26.7 Plan assets

	VersTV (Pensions) €000	ÜVersTV (Transitional payments) €000	KTV (Insurance) €000	Other €000	Total €000
<b>31 Dec 2015</b>					
As at 1 Jan 2015	1,414,927	525,345	22,465	0	1,962,737
Expected return on plan assets	28,903	10,612	441	0	39,956
Employer contributions and payments	82,758	33,166	0	0	115,924
Retirement benefits paid	-32,629	-31,006	-737	0	-64,372
Actuarial gains (+) and losses (-)	36,905	20,211	-667	0	56,449
<b>Market value of plan assets</b>	<b>1,530,864</b>	<b>558,328</b>	<b>21,502</b>	<b>0</b>	<b>2,110,694</b>
Actual return on plan assets	65,808	30,823	-226	0	96,405
<b>31 Dec 2016</b>					
As at 1 Jan 2016	1,530,864	558,328	21,502	0	2,110,694
Expected return on plan assets	37,493	13,527	507	0	51,527
Employer contributions and payments	88,968	33,134	0	0	122,102
Retirement benefits paid	-35,884	-31,059	-774	0	-67,717
Actuarial gains (+) and losses (-)	13,418	22,764	-473	0	35,709
<b>Market value of plan assets</b>	<b>1,634,859</b>	<b>596,694</b>	<b>20,762</b>	<b>0</b>	<b>2,252,315</b>
Actual return on plan assets	50,911	36,291	34	0	87,236

### Composition of plan assets

	31 Dec 2016 €000	31 Dec 2015 €000
Capital investment in the general cover fund of the insurer under Section 54 German Insurance Supervision Act (VAG)	1,351,580	1,238,837
Capital investment in the fund-based pension insurance policy under Section 54b VAG	879,972	850,355
Capital investment in the general cover fund of the insurer under Section 54 VAG (KTV)	20,763	21,502
<b>Market value of plan assets</b>	<b>2,252,315</b>	<b>2,110,694</b>

194

The capital investment of the consortium is subject to the provisions of the German Insurance Supervision Act (VAG). While the life insurance policies are subject to the specific investment guidelines under Section 54 of the VAG, the use of Section 54b of the VAG allows the capital investment to have a higher equity allocation. This should lead to higher returns than available from the regular return under Section 54 of the VAG. The separate investment is managed by an investment company on behalf of the insurance company and the asset allocation is as follows:

**Allocation of the capital investment in the fund-based pension insurance policy**

	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>In %</b>	<b>In %</b>
Shares	53.50	50.40
Bonds	44.30	48.00
Cash	2.20	1.60

- 195 Each year as at 31 December, the life insurance companies compare the capital reserve of the fund-based pension insurance policy with the capital reserve of a normal pension insurance policy. They check if there is sufficient cover for the promised insurance benefits. If this is not the case, the contribution to the fund-based pension insurance policy is increased to boost the existing capital reserve to the required level.
- 196 The capital investment under Section 54b of the German Insurance Supervision Act (VAG) is measured at present value and not at market price. It is a component of assets and it is determined by the consortium at the balance sheet date.

**26.8 Remeasurement of the net defined benefit liability in equity**

	<b>VersTV (Pensions) €000</b>	<b>ÜVersTV (Transitional payments) €000</b>	<b>KTV (Insurance) €000</b>	<b>Other €000</b>	<b>Total €000</b>
<b>31 Dec 2015</b>					
As at 1 Jan 2015	-1,021,337	-306,084	-100,223	-1,009	-1,428,653
Remeasurement of the net defined benefit liability in equity (other comprehensive income) = actuarial gains (+) and losses (-) of the ongoing business year	322,146	77,159	2	52	399,359
<b>Remeasurement of the net defined benefit liability in equity</b>	<b>-699,191</b>	<b>-228,925</b>	<b>-100,221</b>	<b>-957</b>	<b>-1,029,294</b>
<b>31 Dec 2016</b>					
As at 1 Jan 2016	-699,191	-228,925	-100,221	-957	-1,029,294
Remeasurement of the net defined benefit liability in equity (other comprehensive income) = actuarial gains (+) and losses (-) of the ongoing business year	-468,152	-69,111	-18,490	-291	-556,044
<b>Remeasurement of the net defined benefit liability in equity</b>	<b>-1,167,343</b>	<b>-298,036</b>	<b>-118,711</b>	<b>-1,248</b>	<b>-1,585,338</b>

## 26.9 Net defined benefit liability

	VersTV (Pensions)	ÜVersTV (Transitional payments)	KTV (Insurance)	Other	Total
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
As at 1 Jan 2015	1,376,439	465,141	200,574	5,827	2,047,981
Expenses in income statement	134,593	61,625	6,140	234	202,592
Retirement benefits paid	-7,885	-4,946	-5,694	-392	-18,917
Employer contributions	-82,758	-33,166	0	0	-115,924
Remeasurement of the net defined benefit liability in equity (other comprehensive income) = actuarial gains (-) and losses (+) of the ongoing business year	-322,146	-77,159	-2	-52	-399,359
<b>Net defined benefit liability</b>	<b>1,098,243</b>	<b>411,495</b>	<b>201,018</b>	<b>5,617</b>	<b>1,716,373</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
As at 1 Jan 2016	1,098,243	411,495	201,018	5,617	1,716,373
Expenses in income statement	118,392	58,207	6,772	246	183,617
Retirement benefits paid	-8,268	-5,496	-6,298	-596	-20,658
Employer contributions	-88,968	-33,134	0	0	-122,102
Remeasurement of the net defined benefit liability in equity (other comprehensive income) = actuarial gains (-) and losses (+) of the ongoing business year	468,152	69,111	18,490	291	556,044
<b>Net defined benefit liability</b>	<b>1,587,551</b>	<b>500,183</b>	<b>219,982</b>	<b>5,558</b>	<b>2,313,274</b>

## 26.10 Balance sheet amounts

	VersTV (Pensions)	ÜVersTV (Transitional payments)	KTV (Insurance)	Other	Total
	€000	€000	€000	€000	€000
<b>31 Dec 2015</b>					
Present value of defined benefit obligations	2,629,107	969,823	222,520	5,617	3,827,067
Fair value of plan assets	1,530,864	558,328	21,502	0	2,110,694
Funding status obligation (+) and asset (-)	1,098,243	411,495	201,018	5,617	1,716,373
Amount not recognised as assets (IAS 19.64)	0	0	0	0	0
<b>Net amount of debt items (+) and asset items (-) in the balance sheet</b>	<b>1,098,243</b>	<b>411,495</b>	<b>201,018</b>	<b>5,617</b>	<b>1,716,373</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Present value of defined benefit obligations	3,222,410	1,096,877	240,744	5,558	4,565,589
Fair value of plan assets	1,634,859	596,694	20,762	0	2,252,315
Funding status obligation (+) and asset (-)	1,587,551	500,183	219,982	5,558	2,313,274
Amount not recognised as assets (IAS 19.64)	0	0	0	0	0
<b>Net amount of debt items (+) and asset items (-) in the balance sheet</b>	<b>1,587,551</b>	<b>500,183</b>	<b>219,982</b>	<b>5,558</b>	<b>2,313,274</b>

## 26.11 Expenses and income recognised in the statement of comprehensive income

	VersTV (Pensions)	ÜVersTV (Transitional payments)	KTV (Insurance)	Other	Total
	€000	€000	€000	€000	€000
<b>31 Dec 2015</b>					
Interest expense	55,431	19,438	4,398	112	79,379
Expected return on plan assets	-28,903	-10,612	-441	0	-39,956
Net interest expense	26,528	8,826	3,957	112	39,423
Current service cost	108,065	52,799	2,183	122	163,169
Past service cost	0	0	0	0	0
Expenses in income statement	134,593	61,625	6,140	234	202,592
Reversal of the provision for past service cost					-6,065
Interest income from capitalised value					-54
Contributions to the German mutual insurance association					2,643
Payments to defined contribution plans					36,021
- of which contributions to pension insurance					33,227
					<b>235,137</b>
<b>31 Dec 2016</b>					
Interest expense	62,584	22,793	5,258	131	90,766
Expected return on plan assets	-37,493	-13,527	-507	0	-51,527
Net interest expense	25,091	9,266	4,751	131	39,239
Current service cost	93,187	48,941	2,021	115	144,264
Past service cost	0	0	0	0	0
Expenses in income statement	118,278	58,207	6,772	246	183,503
Reversal of the provision for past service cost					-6,065
Interest income from capitalised value					-28
Contributions to the German mutual insurance association					0
Payments to defined contribution plans					36,492
- of which contributions to pension insurance					33,371
					<b>213,902</b>

## 27 Other provisions

	As at 1 Jan 2016	Utilisation	Reversal	Discounting	Additions	As at 31 Dec 2016	Remaining term more than 1 year
	€000	€000	€000	€000	€000	€000	€000
Over-recovery of charges	119,388	-39,176			55,960	136,172	92,850
Personnel	33,330	-3,958	-267	382	241	29,728	19,938
Re-conversion	17,285		-18	854	413	18,534	14,305
Leasehold	20,041	-595		-327		19,119	2,874
Preserving records	10,350	-934		260	613	10,289	9,381
Restructuring	1,738					1,738	
Miscellaneous	10,798	-1,432	-1,477		1,612	9,501	0
	<b>212,930</b>	<b>-46,095</b>	<b>-1,762</b>	<b>1,169</b>	<b>58,839</b>	<b>225,081</b>	<b>139,348</b>

- 197 The provision for over-recovery of charges relates to the over-recovery for the past service cost still to be allocated over seven years.
- 198 For the en-route cost unit, a regulated procedure for determining charges has been in force since 2012. Across Europe, the respective national supervisory authorities lay down binding unit rates according to EU regulations. Consequently, traffic volume and cost changes impact profit and loss. If the values fall short, the DFS Group is authorised and obliged to demand any under-recovery and if the values exceed the relevant thresholds, it is authorised and obliged to return any over-recovery (carry-over). In 2015, the terminal services cost unit was shifted to a performance-based form of regulation. The charges are set by means of a statutory instrument of the Federal Government. For the en-route cost unit, the chances and risks resulting from the differences between planned and actual traffic volume are split between the airspace users and the Group.
- 199 The DFS Group participated in targeted investment in air traffic management under one of the EU funding programmes. From the Connecting Europe Facility (CEF) programme, the EU awarded the Group grant funding of €124.30 million in total to foster SESAR implementation projects with a term until 2020. The DFS Group plans to use the grant funding to reduce air navigation services charges and includes the funding in the over-recovery of charges. Grant funding is recognised as accruals and recorded in profit or loss over the useful lives of the underlying property, plant and equipment.
- 200 Personnel provisions are recognised for early retirement, part-time work for older employees and anniversary payments. These provisions are recognised based on the expert reports of actuaries. In addition, the Group grants recuperation cures to air traffic controllers.
- 201 The leasehold interest to be paid relates to land in Berlin-Schönefeld which is not used operationally.
- 202 The provision for restructuring relates to personnel (severance payments) and infrastructural measures (re-conversion obligations) in connection with operational units to be closed where no future economic benefits are expected.

<b>Due dates of future non-discounted settlement values</b>						
	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>From 2022</b>
	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Over-recovery of charges	43,322	41,151	28,530	6,065	6,065	11,037
Personnel	9,789	5,540	1,496	1,495	1,495	9,912
Re-conversion	4,229	181	0	0	0	14,973
Leasehold	607	619	632	644	657	16,287
Preserving records	908	916	926	934	940	5,803
Restructuring	1,738	0	0	0	0	0
Miscellaneous	9,502	0	0	0	0	0
	<b>70,095</b>	<b>48,407</b>	<b>31,584</b>	<b>9,138</b>	<b>9,157</b>	<b>58,012</b>

<b>Discount rates (in %) distributed over the respective remaining terms in years</b>						
	<b>1 to 2</b>	<b>2 to 3</b>	<b>3 to 4</b>	<b>4 to 5</b>	<b>5 to 6</b>	<b>6 to 7</b>
2016	-0.48	-0.46	-0.38	-0.26	-0.09	0.07
2015	-0.09	-0.03	0.06	0.21	0.36	0.46
	<b>7 to 8</b>	<b>8 to 9</b>	<b>9 to 10</b>	<b>11 to 15</b>	<b>15 to 30</b>	
2016	0.17	0.32	0.46	0.45	1.02	
2015	0.60	0.72	0.90	0.88	1.58	

203 Due to the change in the discount rates, the discounted provisions increased by €1,153 thousand respectively (previous year: decline of €78 thousand) and the interest expense rose by €1,085 thousand (previous year: decline of €83 thousand) in comparison with the application of the previous year's rates.

## 28 Financial liabilities

	31 Dec 2016	31 Dec 2016	31 Dec 2015	31 Dec 2015
	Total	Remaining term more than 1 year	Total	Remaining term more than 1 year
	€000	€000	€000	€000
Contributions made to implement the agreed capital increase	0	0	162,500	162,500
Bonds	25,000	25,000	47,888	25,000
Debenture loans	285,000	285,000	285,000	285,000
QTE transaction	55,071	47,614	58,862	53,321
Derivative financial instruments	791	0	0	0
Financial debt from the capital investments of the investment firm	601	0	0	0
Finance lease liabilities	15	0	45	15
	<b>366,478</b>	<b>357,614</b>	<b>554,295</b>	<b>525,836</b>

## Bonds and debenture loans

Term	Currency	Nominal value	Nominal interest rate	Effective interest rate	31 Dec 2016	31 Dec 2015
					€000	€000
2003 to 2018	EUR	25,000	4.840%	4.840%	25,000	25,000
2004 to 2016	JPY	22,200	1.820%	1.820%	0	22,888
<b>Bonds</b>		<b>47,200</b>			<b>25,000</b>	<b>47,888</b>
2010 to 2017	EUR	87,500	2.564%		87,500	87,500
2010 to 2020	EUR	87,500	3.007%		87,500	87,500
2013 to 2023	EUR	110,000	2.308%		110,000	110,000
<b>Debenture loans</b>		<b>285,000</b>			<b>285,000</b>	<b>285,000</b>

204 The term of the Yen-denominated bond ended on 28 June 2016.

205 In the previous year, the QTE transaction with foreign investors was basically terminated. DFS agreed with the remaining contracting parties to keep up the domestic cash flows (for additional disclosures on the QTE transaction see Note 21).

206 More disclosures on the capital contribution through the investment firm can be found in Note 23.

<b>Future minimum lease payments from finance lease liabilities</b>				
	<b>Up to 1 year</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Total</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Future minimum lease payments	15	0	0	15
Interest component	0 <sup>19)</sup>	0	0	0
Finance lease liabilities (present value)	15	0	0	15
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Future minimum lease payments	32	15	0	47
Interest component	2	0 <sup>19)</sup>	0	2
Finance lease liabilities (present value)	30	15	0	45
<sup>19)</sup> Under €1 thousand				

## 29 Trade payables

	<b>31 Dec 2016</b>	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>	<b>31 Dec 2015</b>
	<b>Total</b>	<b>Remaining term more than 1 year</b>	<b>Total</b>	<b>Remaining term more than 1 year</b>
	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Germany	20,155	0	516	0
Abroad	3,760	0	3,454	0
Creditors with debit balances	6,422	0	18,639	0
Amounts withheld	878	593	1,520	860
Maastricht unit	99	0	0	0
	<b>31,314</b>	<b>593</b>	<b>24,129</b>	<b>860</b>

- 207 Trade payables in foreign currencies amount to €175 thousand (previous year: €196 thousand) at the balance sheet date. Due to the low impact on the results (less than €12 thousand), there was no currency valuation.
- 208 Trade payables are regularly secured by means of reservation of title clauses until payment is made in full.

**30 Other liabilities**

	31 Dec 2016	31 Dec 2016	31 Dec 2015	31 Dec 2015
	Total	Remaining term more than 1 year	Total	Remaining term more than 1 year
	€000	€000	€000	€000
Staff costs	30,635	0	29,386	0
Outstanding invoices	9,743	0	10,722	0
Interest payable	5,679	0	6,539	0
Share of en-route charges: German Meteorological Service	2,193	0	2,208	0
Liabilities to investees	709	0	1,490	0
Amounts owed to Shareholder	462	0	621	0
Liabilities from the capital investments of the investment firm	250	0	0	0
Derivative financial instruments	0	0	568	568
Remaining	873	0	1,414	0
<b>Other liabilities (financial)</b>	<b>50,544</b>	<b>0</b>	<b>52,948</b>	<b>568</b>
Staff costs	22,416	0	22,976	0
Amounts owed to tax authorities	20,213	0	16,758	0
Remaining	11,535	5,674	6,807	0
<b>Other liabilities (non-financial)</b>	<b>54,164</b>	<b>5,674</b>	<b>46,541</b>	<b>0</b>
	<b>104,708</b>	<b>5,674</b>	<b>99,489</b>	<b>568</b>

<b>Offsetting of financial assets and liabilities</b>			
	<b>Financial assets (+)</b>	<b>Financial liabilities (-)</b>	<b>Assets (+) and liabilities (-) as reported on the balance sheet</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Shareholder</b>	7,096	-7,558	-462
<b>Investments</b>			
FCS	71	-729	-658
GroupEAD	5	-28	-23
BILSODA	0	-28	-28
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Shareholder</b>	2,486	-3,107	-621
<b>Investments</b>			
FCS	157	-1,609	-1,452
GroupEAD	48	-4	44
BILSODA	0	-38	-38

209 The fair values of the offset financial assets and liabilities correspond to their carrying amounts. The DFS Group did not receive collateral for the financial assets nor did it provide collateral for the financial liabilities.

### 31 Current tax assets and obligations

	<b>Current tax assets</b>		<b>Income tax obligations</b>	
	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Long-term</b>				
Corporation tax	0	0	18,092	18,092
Trade tax	0	0	12,777	12,777
Foreign taxes	0	0	0	0
<b>Short-term</b>				
Corporation tax	904	4,374	0	0
Trade tax	23	586	0	0
Foreign taxes	32	61	100	100
Other taxes	103	123	0	0
	<b>1,062</b>	<b>5,144</b>	<b>30,969</b>	<b>30,969</b>

210 Non-current income tax obligations relate to provisions from the tax audit from 2003 to 2011.

## Additional disclosures

### 32 Notes to segment reporting

- 211 Segment reporting is based on the internal management and reporting systems. Commercial management and reporting have been based on cost units and contribution margins since the start of economic regulation. This enhances the transparency as well as the planning and control of the individual divisions.
- 212 Within the scope of segment reporting, the Board of Managing Directors as the chief operating decision-maker allocates company funds and assesses the performance of the operating segments. The operating result (operating EBIT) is an important performance indicator for the DFS Group. EBIT is used for resource allocation and to measure the profitability of the segments. Further data are neither collected nor communicated to the chief operating decision-makers.

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#### Regulated business

The main business of the DFS Group (see section 1.1 in the Group management report) is the provision of air navigation services and the directly associated support activities. The DFS Group defines these activities as the 'regulated business'. This is divided into en-route and terminal services.

#### Commercial business

The commercial business comprises all Group activities that are not allocated to the regulated business. The focus is on products and services offered internationally on the free market, namely air navigation services, consultancy services, the sale of ATM systems, as well as analysis, simulation and project management activities, and the sale of publications and energy. This segment also includes services for operational air traffic (OAT), for flights under visual flight rules (VFR) and the Maastricht Upper Area Control Centre (MUAC) as well as the remaining shell of the QTE structure.

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- 213 The determination of segment data is based on the following premises:
- The assets and liabilities of DFS Energy are included as part of the operating assets in the cost-base for determining charges. Consequently, in the reconciliation to the Group results, the expenses and income of DFS Energy are disclosed separately.
  - Financial indicators (IFRS and HGB) are used for the planning and control of the commercial business. An inclusion in the Group planning and control system is currently being set up.
  - Although the Treasury and Tax departments operate at a corporate level above the segments, the financial result and income taxes are assigned to the commercial business for reasons of simplicity.
  - The number of staff corresponds to the number of employees.

**Information on the business segments by cost type**

	Regulated business	Commercial business	Consolidation/ reconciliation	Group earnings
2016	€000	€000	€000	€000
External revenues	1,158,387	52,919		1,211,306
Intersegment revenues	22,681		-22,681	0
Other operating income	22,978	452		23,430
Own work capitalised / changes in inventory	3,047	-50	23	3,020
<b>Total operating revenues and income</b>	<b>1,207,093</b>	<b>53,321</b>	<b>-22,658</b>	<b>1,237,756</b>
Staff costs	841,858	14,223		856,081
Material costs	88,610	13,882	118	102,610
Depreciation and amortisation	107,049	1,845		108,894
Project costs	13,269			13,269
Intersegment costs		22,681	-22,681	0
Reconciliation			-16,516	-16,516
<b>Total costs</b>	<b>1,050,786</b>	<b>52,631</b>	<b>-39,079</b>	<b>1,064,338</b>
<b>Internal results for the period</b>	<b>156,307</b>	<b>690</b>	<b>16,421</b>	<b>173,418</b>
Carry-over current business year	-42,279			-42,279
<b>Earnings before interest and taxes (EBIT)</b>	<b>114,028</b>	<b>690</b>	<b>16,421</b>	<b>131,139</b>
Interest	-35,995	407	-3,216	-38,804
Catch-up effects	-53,352		53,352	0
Income taxes	-7,523	118	1,657	-5,748
<b>Net income</b>	<b>17,158</b>	<b>1,215</b>	<b>68,214</b>	<b>86,587</b>
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
External revenues	1,227,156	41,534	-2	1,268,688
Intersegment revenues	18,622		-18,622	0
Other operating income	22,894	910		23,804
Own work capitalised / changes in inventory	311	5	-21	295
<b>Total operating revenues and income</b>	<b>1,268,983</b>	<b>42,449</b>	<b>-18,645</b>	<b>1,292,787</b>
Staff costs	839,924	7,607		847,531
Material costs	93,740	9,808	458	104,006
Depreciation and amortisation	107,778	1,726		109,504
Project costs	18,412			18,412
Intersegment costs		18,622	-18,622	0
Reconciliation			3,958	3,958
<b>Total costs</b>	<b>1,059,854</b>	<b>37,763</b>	<b>-14,206</b>	<b>1,083,411</b>
<b>Internal results for the period</b>	<b>209,129</b>	<b>4,686</b>	<b>-4,439</b>	<b>209,376</b>
Carry-over current business year	-46,079			-46,079
<b>Earnings before interest and taxes (EBIT)</b>	<b>163,050</b>	<b>4,686</b>	<b>-4,439</b>	<b>163,297</b>
Interest	-37,698	840	-7,577	-44,435
Catch-up effects	-51,509		51,509	0
Income taxes	6,436	-838	-874	4,724
<b>Net income</b>	<b>80,279</b>	<b>4,688</b>	<b>38,619</b>	<b>123,586</b>

**Information on business segments with reconciliation from charges-related result before interest and taxes to IFRS Group earnings before interest and taxes**

	<b>EBIT</b>	<b>EBIT</b>
	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Terminal services	10,707	31,251
En-route services	94,861	124,077
Commercial business	193	-70
Other regulated and commercial business	9,208	8,710
<b>Earnings before interest and taxes from a charges-related perspective</b>	<b>114,969</b>	<b>163,968</b>
<b>Reconciliation to DFS earnings before interest and taxes under IFRS</b>		
Occupational pensions from a charges-related perspective	85,340	94,665
Occupational pensions under IAS/IFRS	-137,833	-156,749
Change in equity relevant to charges (closing deficit)	70,168	59,164
Consolidation/reconciliation	-1,505	2,249
<b>Group earnings before interest and taxes under IFRS</b>	<b>131,139</b>	<b>163,297</b>

**Information on important external customers**

	<b>2016</b>	<b>2016</b>	<b>2015</b>	<b>2015</b>
	<b>€000</b>	<b>In %</b>	<b>€000</b>	<b>In %</b>
DFS total revenues <sup>20)</sup>	1,180,486	100.00	1,270,522	100.00
Lufthansa	187,087	15.85	210,738	16.59
Air Berlin	69,286	5.87	76,639	6.03
Ryanair	63,975	5.42	56,924	4.48
Federal Ministry of Defence	62,530	5.30	67,691	5.33
Eurowings (formerly Germanwings)	62,509	5.30	56,305	4.43
easyJet Airline	36,885	3.12	37,612	2.96
British Airways	34,853	2.95	36,925	2.91
KLM Royal Dutch Airlines	34,131	2.89	37,080	2.92
Emirates	28,143	2.38	27,970	2.20
Turkish Airlines	27,460	2.33	28,892	2.27

<sup>20)</sup> Comprising terminal and en-route revenues as well as revenues from military operational air traffic

### 33 Additional disclosures on the cash flow statement

214 The cash flow statement shows the change in liquid funds between two balance sheet dates to show the movements in cash and cash equivalents for the DFS Group. Cash inflows and outflows are divided into operating, investing and financing activities and only show cash flows from continuing operations. There are no discontinued operations.

215 Current bank overdrafts are deducted from liquid funds when drawing up the cash flow statement:

	31 Dec 2016	31 Dec 2015
	€000	€000
Short-term securities	557,243	144,902
Cash in hand and cheques	42	34
Cash at bank	386,962	569,311
Current overdraft	0	0
	<b>944,247</b>	<b>714,247<sup>21)</sup></b>

<sup>21)</sup> Rounding difference to cash flow statement €1 thousand

216 Cash inflow from operating activities was calculated using the indirect method by adjusting net income for changes in inventory, receivables, other assets and borrowings as well as depreciation and amortisation and other non-cash income and expenses. The cash flows from income taxes relate to all three of the above areas of activity. However, owing to the time that would be involved in assigning the cash flows from income taxes to the individual activities, for the purpose of the cash flow statement they were allocated to operating activities.

217 In addition to the separate consolidated cash flow statement using the indirect method, the DFS Group has adopted the recommendation of IAS 7.19 and also shows the cash flows from operating activities according to the direct method. The direct method provides information that makes it easier to estimate future cash flows. This sort of information is not available under the indirect method. The direct cash flow statement is oriented towards the structure of the actual cash flows. The cash inflows from revenues are shown alongside the cash outflows. In particular, the higher staff costs when compared with the employee expenses reported in the consolidated statement of comprehensive income are because of the payment of reinsurance premiums and actual pension payments after the reimbursement from the pension plan reinsurance. These cash outflows are matched with revenues from air navigation charges that show the actual liquidity inflows, which may not correspond exactly to the revenues reported in the consolidated statement of comprehensive income. Investment grants, revenues from the commercial business and reimbursements which are relevant to the calculation of air navigation charges (SESAR) are recorded under other proceeds. The value accruals item shows the cash flows which are not allocated to the items previously used in the cash flow statement or whose clear allocation would have involved considerable expense.

<b>Cash flows from operating activities using the direct method</b>		
	<b>2016</b>	<b>2015</b>
	<b>€000</b>	<b>€000</b>
Terminal charges received	230,744	236,654
En-route charges received	912,117	938,940
Reimbursements OAT / Maastricht / VFR flights	86,554	77,616
Other payments	67,369	59,118
Revenues (subsidiaries)	30,093	23,506
Reimbursements paid	-11,055	-10,843
Staff costs	-811,358	-826,279
Staff costs (subsidiaries)	-14,158	-7,534
Non-staff and project costs	-146,489	-166,340
Non-staff and project costs (subsidiaries)	-16,932	-13,153
Netting of tax refunds (+) / overpayment (-) (income taxes, VAT, withholding taxes)	4,075	3,481
Value accruals	5,396	748
	<b>336,356</b>	<b>315,914</b>

218 Cash outflows for investing and financing activities are presented using the direct method.

## 34 Financial instruments

### Financial assets by category

	Carrying amount	At fair value through profit or loss	Held-to-maturity	Loans and receivables	Available-for-sale	Fair value	Level
	€000	€000	€000	€000	€000	€000	
<b>31 Dec 2016</b>							
Loans to investments	3,524			3,524		3,524	3
Investments	4,178				4,178	4,178	3
Derivative financial instruments	1,765				1,765	1,765	2
Trade receivables	167,148			167,148		167,148	3
Future receivables from construction contracts	6,774			6,774		6,774	3
Under-recovery	105			105		105	3
QTE transaction	53,856		53,856			53,856	2
Capitalised value	2,813				2,813	2,813	2
Receivables from EU grant aid	2,763			2,763		2,763	3
Interest receivables	1,718			1,718		1,718	2
Other assets of level 2	5,743			5,743		5,743	2
Other assets of level 3	7,448			7,448		7,448	3
Short-term securities	557,243				557,243	557,243	2
Liquid funds	387,004			387,004		387,004	2
	<b>1,202,082</b>	<b>0</b>	<b>53,856</b>	<b>582,227</b>	<b>565,999</b>	<b>1,202,082</b>	
<b>31 Dec 2015</b>							
Loans to investments	4,255			4,255		4,255	3
Investments	4,624				4,624	4,624	3
Trade receivables	176,871			176,871		176,871	3
Future receivables from construction contracts	2,302			2,302		2,302	3
Under-recovery	46,485			46,485		46,485	3
QTE transaction	57,375		57,375			57,375	2
Capitalised value	2,456				2,456	2,456	2
Derivative financial instruments	899	899				899	2
Interest receivables	1,931			1,931		1,931	2
Receivables from investments	44			44		44	3
Other assets of level 2	5,423			5,423		5,423	2
Other assets of level 3	19,437			19,437		19,437	3
Short-term securities	144,902				144,902	144,902	2
Liquid funds	569,345			569,345		569,345	2
	<b>1,036,349</b>	<b>899</b>	<b>57,375</b>	<b>826,093</b>	<b>151,982</b>	<b>1,036,349</b>	

### Valuation technique

Cost approach: For loans to investments, the DFS Group assumes they can be sold for at least their carrying amounts in the short term and sets their fair values at the same level. The fair values of the investments can be calculated reliably and backed up with financial calculations. The Group values the stake in FCS using the equity method, with the total carrying amount reflecting the proportionate changes in equity.

Due to the predominately short-term nature of trade receivables, other receivables and assets as well as liquid funds, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The Group therefore assumes that these assets can be sold for at least their carrying amounts in the short term and sets their fair values at the same level.

Market approach: The fair values of securities and financial assets are determined completely or partially using recognised valuation models or the valuations of third parties based on the market conditions prevailing at the balance sheet date (interest and exchange rates) using external sources or market prices. In determining the fair value of derivatives, compensating effects from the primary transaction (pending business or anticipated transactions) are excluded.

Present value method: The fair value of the QTE transaction is determined based on discounting future expected cash flows.

### Unobservable inputs

Discount rate, nominal value of investments as well as other receivables and assets

### Observable inputs

Security prices, market interest rates

### Relationship between inputs and fair value

The estimated fair value would increase if

- the risk-adjusted discount rate was lower
- the nominal values were higher
- the security prices were higher
- the market interest rates were higher

### Reconciliation of the fair values of level 2 and 3

	Level 2 31 Dec 2016 €000	Level 3 31 Dec 2016 €000	Level 2 31 Dec 2015 €000	Level 3 31 Dec 2015 €000
As at 1 Jan	782,331	254,018	383,053	260,667
Ongoing gains (+) and losses (-)	5,990	-512	902	-1,560
Gains (+) and losses (-) recognised in other comprehensive income	11,080	0	0	0
Additions (+) and disposals (-)	210,741	-61,566	398,376	-5,089
Transfers in and out of levels	0	0	0	0
As at 31 Dec	1,010,142	191,940	782,331	254,018

**Financial liabilities by category with disclosures on fair value**

	Carrying amount	At fair value through profit or loss	Amortised cost	Fair value	Level
	€000	€000	€000	€000	
<b>31 Dec 2016</b>					
Bonds	25,000		25,000	26,346	1
Debenture loans	285,000		285,000	311,386	2
QTE transaction	55,071		55,071	55,071	2
Derivative financial instruments	791	791	791	791	2
Financial debt from the capital investments of the investment firm	601		601	601	2
Finance leases	15		15	15	3
Trade payables	31,314		31,314	31,314	3
Staff costs	30,635		30,635	30,635	3
Amounts owed to Shareholder	462		462	462	3
Liabilities to investments	709		709	709	3
Outstanding invoices	9,743		9,743	9,743	3
Interest payable	5,679		5,679	5,679	2
Liabilities from the capital investments of the investment firm	250		250	250	3
Share of charges: German Meteorological Service	2,193		2,193	2,193	3
Remaining financial liabilities	873		873	873	3
	<b>448,336</b>	<b>791</b>	<b>448,336</b>	<b>476,068</b>	
<b>31 Dec 2015</b>					
Contributions made to implement the agreed capital increase	162,500		162,500	162,500	2
Bonds	47,888		47,888	50,698	1
Debenture loans	285,000		285,000	313,457	2
QTE transaction	58,862		58,862	58,862	2
Finance leases	45		45	45	3
Trade payables	24,129		24,129	24,129	3
Staff costs	29,386		29,386	29,386	3
Amounts owed to Shareholder	621		621	621	3
Liabilities to investments	1,490		1,490	1,490	3
Outstanding invoices	10,722		10,722	10,722	3
Interest payable	6,539		6,539	6,539	2
Derivative financial instruments	568	568	568	568	2
Share of charges: German Meteorological Service	2,208		2,208	2,208	3
Remaining financial liabilities	1,414		1,414	1,414	3
	<b>631,372</b>	<b>568</b>	<b>631,372</b>	<b>662,639</b>	

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**Valuation technique**

Cost approach: Due to the predominately short-term nature of trade payables and other liabilities, the carrying amounts at the balance sheet date do not differ significantly from their fair values. The DFS Group assumes that the fair values of these liabilities are at least equal to the settlement value from a current obligation.

Market approach: The fair values of debenture loans and financial debt are determined completely or partially using recognised valuation models or the valuations of third parties based on the market conditions prevailing at the balance sheet date (interest and exchange rates) using external sources or market prices. In determining the fair value of derivatives, compensating effects from the primary transaction (pending business or anticipated transactions) are excluded. The fair value of the bonds is determined using market listings on public markets.

Present value method: The fair value of finance leases and the QTE transaction is determined by discounting future expected cash flows using prevailing market interest rates.

**Unobservable inputs**

Discount rate, settlement value of other liabilities and liabilities

**Observable inputs**

Exchange prices, exchange rates, market interest rates

**Relationship between inputs and fair value**

The estimated fair value would increase if

- the risk-adjusted discount rate was lower
  - the settlement values were higher
  - the exchange prices were higher
  - the exchange rates were higher
  - the market interest rates were higher
- 

**Reconciliation of the fair values of level 2 and 3**

	Level 2	Level 3	Level 2	Level 3
	31 Dec 2016	31 Dec 2016	31 Dec 2015	31 Dec 2015
	€000	€000	€000	€000
As at 1 Jan	541,926	70,015	385,732	89,680
Ongoing gains (+) and losses (-)	568	0	2,075	0
Gains (+) and losses (-) recognised in other comprehensive income	0	0	0	0
Additions (+) and disposals (-)	-168,966	6,179	154,119	-19,665
Transfers in and out of levels	0	0	0	0
As at 31 Dec	373,528	76,194	541,926	70,015

<b>Assets (+) and liabilities (-) at fair value</b>				
	<b>As at 1 Jan</b>	<b>Change in value 2016</b>	<b>Cumulative change in value</b>	<b>As at 31 Dec</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Futures	0	1,765	1,765	1,765
Interest rate swap 918388L	899	-899	-899	0
Futures	0	-791	-791	-791
Interest rate swap 918135L	-568	568	568	0
	<b>331</b>	<b>643</b>	<b>643</b>	<b>974</b>
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Interest rate swap 918135L	-1,626	1,058	1,058	-568
Interest rate swap 918388L	-1,016	1,915	1,915	899
	<b>-2,642</b>	<b>2,973</b>	<b>2,973</b>	<b>331</b>

219 The Group determines the net results by measurement category for financial instruments that were recognised and measured at the reporting date:

- At fair value through profit or loss: The net loss is made up of the remeasurement of the interest rate swaps used at market prices and the resulting interest expenses.
- Held-to-maturity: The net gain relates to the interest income of the interest-bearing receivable (fixed) from the remaining QTE transaction.
- Loans and receivables: The net result includes interest income from customer receivables, fixed-rate loans to associated companies and current account balances with fixed interest rates. The result considers the proportionate gains and losses from capital investments of the investment firm. Allowances for doubtful accounts and the write-off of trade receivables reduce the net result. In addition, the result contains the incidental costs and administration fees of credit institutions.
- Available-for-sale: The net result is made up of the proportionate gains and losses from current measurement, administration, disposals and currency translation from the capital investment of the investment firm. In addition, income from investments is included.
- Amortised cost: The net result is made up of the income from currency translation of the foreign loan and the incidental costs and administration fees of credit institutions. In addition, the interest expense for the loan, the debenture loans, the QTE liability, the suppliers and the finance leases are recognised.

## Net results of financial instruments by measurement category

	Assets				Liabilities
	At fair value through profit or loss	Held-to-maturity	Loans and receivables	Available-for-sale	Amortised cost
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Income (+) from investments				296	
Income (+) from foreign currency translation			59	1,127	691
Gains (+) and losses (-) from remeasurement	-331		48	920	
Gains (+) and losses (-) from disposals			44	833	
Expenses (-) from impairments			-3,607	-5	
Interest income (+)		1,512	833	3,670	59
Interest expense (-)	-368		0	-2	-10,056
Other financial expenses (-)			-627	-759	-234
<b>Gains (+) and losses (-)</b>	<b>-699</b>	<b>1,512</b>	<b>-3,250</b>	<b>6,080</b>	<b>-9,540</b>
Recognised directly in other comprehensive income	0	0	0	11,079	0
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Income (+) from investments				295	
Expenses (-) from foreign currency translation					-2,229
Gains (+) from remeasurement	2,973				
Expenses (-) from impairments			-4,714		
Interest income (+)		1,492	532	15	93
Interest expense (-)	-743				-10,244
Other financial income (+) and expenses (-)			-565		-195
<b>Gains (+) and losses (-)</b>	<b>2,230</b>	<b>1,492</b>	<b>-4,747</b>	<b>310</b>	<b>-12,575</b>
Recognised directly in other comprehensive income	0	0	0	0	0

220 The expenses from impairments and other financial expenses are reported under other operating expenses. All other expenses and income are allocated to the financial result.

### 35 Derivative financial instruments

- 221 The DFS Group is exposed to market risks in the form of interest and currency fluctuations (see Note 36 and section 6.2.2 in the Group management report). The Group uses derivative financial instruments to manage these risks.
- 222 In addition, the DFS Group is exposed to default risk. To minimise this risk, it concludes derivative transactions exclusively with its principal bankers, who have good credit ratings.
- 223 Speculative transactions with derivative instruments where there is no underlying transaction are forbidden.

<b>Derivative financial instruments</b>					
	<b>Remaining term</b>	<b>Nominal volume</b>	<b>Fair value</b>	<b>Nominal volume</b>	<b>Fair value</b>
		<b>31 Dec 2016</b>	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>	<b>31 Dec 2015</b>
		<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Positive fair value</b>					
Futures and interest rate swaps	Up to 1 year	1,765	1,765	0	0
Receiver cross-currency interest rate swaps	Up to 1 year	0	0	22,200	899
		0	0	22,200	899
<b>Negative fair value</b>					
Futures	Up to 1 year	-791	-791	0	0
Payer interest rate swaps	Up to 1 year	0	0	22,200	-568
		0	0	22,200	-568

- 224 The cross-currency interest rate swaps and the interest rate swaps to hedge the Yen-denominated bond ended on 28 June 2016. In the previous year, the clean price was reported as the fair value. The change was primarily due to the development of interest rates. While the fixed interest rates amounted to 1.8200 percent and 5.1675 percent, the variable interest rates were 0.059 percent. They result from adding 0.100 percentage points and the six-month EURIBOR.
- 225 The futures were concluded as part of the capital investments through an investment firm and are to be closed by March 2017 at the latest.

### 36 Financial risks

- 226 Financial risks arise in the form of liquidity risks, default risks and market price risks. The DFS Group provides disclosures in the Group management report in section 6.2.2 on the required qualitative disclosures under IFRS 7 about the type and means by which risks from financial instruments arise as well as the procedures for the management of these risks.

### 36.1 Liquidity risks

227 Liquidity risk describes the risk that the DFS Group may not be in the position to settle its financial liabilities as contractually required through the delivery of cash or other financial assets.

<b>Maturities of undiscounted principal and interest payments from financial liabilities</b>					
	<b>Up to 3 months</b>	<b>4 to 12 months</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Total</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Non-derivative financial liabilities</b>					
Bonds	0	0	25,000	0	25,000
Debenture loans	0	0	175,000	110,000	285,000
Interest	3,749	4,875	19,258	5,078	32,960
QTE transaction	7,457	0	25,355	22,259	55,071
Financial debt from the capital investments of the investment firm	0	601	0	0	601
Finance lease liabilities	10	5	0	0	15
Trade payables	29,072	1,649	593	0	31,314
Other liabilities	42,332	8,212	0	0	50,544
<b>Derivative financial liabilities</b>					
Derivatives	791	0	0	0	791
	83,411	15,342	245,206	137,337	481,296
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
<b>Non-derivative financial liabilities</b>					
Contributions made to implement the agreed capital increase	0	0	0	162,500	162,500
Bonds	0	22,200	25,000	0	47,200
Debenture loans	0	0	175,000	110,000	285,000
Interest	3,749	14,306	25,343	7,617	51,015
QTE transaction	5,541	0	30,536	22,785	58,862
Finance lease liabilities	10	20	15	0	45
Trade payables	21,850	182	503	0	22,535
Other liabilities	65,726	6,649	0	0	72,375
<b>Derivative financial liabilities</b>					
Derivatives	0	743	0	0	743
	96,876	44,100	256,397	302,902	700,275

## 36.2 Default risks

- 228 The DFS Group is exposed to default risks from financial receivables that result from the possible default on the obligations of a party to a contract. The maximum value equals the positive fair value or market value of the financial instrument.

<b>Default risk by category</b>	<b>31 Dec 2016 €000</b>	<b>31 Dec 2015 €000</b>
At fair value through profit or loss	0	899
Held-to-maturity	53,856	57,375
Loans and receivables	582,227	826,093
Available-for-sale	565,999	151,982
	1,202,082	1,036,349

- 229 With the exception of trade receivables, there are no financial assets that were overdue or impaired. Trade receivables were written down to the amount that could be recovered as soon as information on the insolvency of customers was available. The Group demands security deposits from customers with relevant sales volumes when defined warning thresholds are exceeded. In addition, there are no indications that the debtors whose receivables are overdue will not be able to fulfil their obligations.
- 230 As regards financial investing, the Group only enters into transactions with counterparties who either have a long-term rating of at least A+ (Standard & Poor's) or A1 (Moody's), short-term A-2 (Standard & Poor's) or P-2 (Moody's), or a correspondingly high creditworthiness or other form of collateral.
- 231 Business dealings with a selected group of principal bankers are conducted using uniform standards and existing reciprocal cash flows are continuously improved.

## 36.3 Market risks

- 232 Market risk is defined as the risk that the fair values or future cash flows of a primary or derivative financial instrument change due to fluctuations in market prices (interest rate risk and currency risk). Interest rate risk arises primarily when refinancing with variable rates. Currency risks result from exchange rate fluctuations for transactions in foreign currencies.

### Interest rate risk for financial liabilities

	<b>31 Dec 2016 Nominal value €000</b>	<b>31 Dec 2015 Nominal value €000</b>
Fixed-rate bonds	25,000	47,200
Fixed-rate debenture loans	285,000	285,000
	310,000	332,200

<b>Net risk by currency</b>				
	<b>31 Dec 2016 Nominal value</b>	<b>31 Dec 2016 Value at reporting date</b>	<b>31 Dec 2015 Nominal value</b>	<b>31 Dec 2015 Value at reporting date</b>
	<b>JPY '000</b>	<b>€000</b>	<b>JPY '000</b>	<b>€000</b>
Primary transactions	0	0	3,000,000	22,889
Derivative financial instruments	0	0	-3,000,000	0
Planned hedges	0	0	0	0
	<b>USD '000</b>	<b>€000</b>	<b>USD '000</b>	<b>€000</b>
Primary transactions	304	278	214	196
Derivative financial instruments	0	0	0	0
Planned hedges	0	0	0	0
	<b>£'000</b>	<b>€000</b>	<b>£'000</b>	<b>€000</b>
Primary transactions	0 <sup>20)</sup>	0 <sup>20)</sup>	0 <sup>20)</sup>	0 <sup>20)</sup>
Derivative financial instruments	0	0	0	0
Planned hedges	0	0	0	0
	<b>CHF '000</b>	<b>€000</b>	<b>CHF '000</b>	<b>€000</b>
Primary transactions	2	2	0	0
Derivative financial instruments	0	0	0	0
Planned hedges	0	0	0	0

<sup>20)</sup> Under £1 thousand or €1 thousand

233 The value-at-risk analysis conducted determines the currency and interest risk, which is based on a sensitivity model used for internal planning and control. The value-at-risk analysis shows the decline which will not be exceeded with a probability of 95.00 percent when the holding period is ten days.

<b>Value-at-risk</b>				
	<b>31 Dec 2016 Foreign exchange risk €000</b>	<b>31 Dec 2016 Interest rate risk €000</b>	<b>31 Dec 2015 Foreign exchange risk €000</b>	<b>31 Dec 2015 Interest rate risk €000</b>
<b>By currency</b>				
USD	11	0	30	0
EUR	0	2,706	0	2,111
<b>By line item</b>				
Money market	0	116	0	36
Capital market	0	2,794	683	2,121
Hedge	11	1	832	14
<b>Overall risk</b>	<b>Value at year end €000</b>	<b>Highest value €000</b>	<b>Lowest value €000</b>	<b>Annual average €000</b>
2016	2,707	3,488	423	1,311
2015	2,123	2,123	755	1,455

- 234 Foreign exchange risks that impact the balance sheet arise due to monetary items that are not in the functional currency. As the primary monetary financial instruments are held mainly in the functional currency or converted into the functional currency by means of derivatives, changes in exchange rates therefore have no material impact on the result or equity.
- 235 Interest rate risk results mainly from the sensitivity of financial instruments. Liquidity is ensured by means of money market and capital market programmes with long maturities that have fixed and variable interest rates. The use of derivative financial instruments, such as interest rate swaps and cross-currency interest rate swaps, secures fixed interest rates and thus limits interest rate risk. The changes in interest rates therefore have no material impact on the result or equity.
- 236 The obligation and plan assets for DFS Group occupational pensions are exposed to interest rate risk. The discount rate for pensions and similar obligations is based on the market yields for high-quality fixed-rate corporate bonds. The continued decline in the level of interest rates would lead to a further increase in the obligation. The low returns that can currently be earned on the market mean that the pension plan assets cannot yield substantial income, which reduces the speed at which the assets for occupational pensions may grow.

## **37 Capital management**

- 237 As regards commercial considerations, capital is managed first of all from a charges-related/regulatory perspective (for further disclosures see section 2.4.3.1 in the Group management report). This perspective takes additional elements into account when contrasted with the accounting principles under IAS/IFRS. The commercial business should make an above-average contribution to net income and the build-up of equity as its profits are not subject to regulation.

### **37.1 Consideration of the catch-up effects from conversion to IAS/IFRS not included in the financial statements**

- 238 The financial statements were converted from the German Commercial Code (HGB) to IFRS in 2007. This led to remeasurements, in particular as regards occupational pensions, which were recognised directly in retained earnings. This resulted in a negative equity situation. The DFS Group is authorised to include these negative consequences in the cost-base for determining and levying charges. These off-balance-sheet catch-up effects may be charged to airspace users over a 15-year period. This will have a positive influence on the equity and liquidity of the Group over the remaining period of six years. The German Federal Supervisory Authority for Air Navigation Services (BAF) subjects the catch-up effects, the return on equity and the costs of occupational pensions to an efficiency target of minus 1.50 percent in real terms for 2015 and 2016 and minus 2.50 percent for the subsequent years with an impact on total costs. The DFS Group considers these regulatory targets to be legally doubtful and is reviewing suitable measures.

### **37.2 Inclusion of the model to finance occupational pensions approved by the regulatory authority**

239 Since 2012, the DFS Group has been authorised to distribute the following components of charges over the average remaining time to work of the staff (15 years) in a rolling fashion and include them in the following reference periods, resulting in a liquidity effect:

- service cost and
- the distribution of the deficit, including interest on the outstanding instalments to close the deficit. The deficit at the beginning of a reference period is the difference between the obligation and the assets less the present value of the cash flows (including interest) that were already approved in prior periods to close the deficit. The determination of the present value of cash flows is based on the respective current interest rate for charges.

240 The German Federal Supervisory Authority for Air Navigation Services (BAF) also subjects these elements to an efficiency target, which the DFS Group considers to be unlawful.

### **37.3 Law on the Implementation of the Mutual Assistance Directive as well as on the Change to Tax Regulations (*Amtshilferichtlinie-Umsetzungsgesetz*)**

241 Section 29 of this law contains the change to Section 31b(3) of the German Aviation Act (LuftVG). Consequently, the positive or negative difference between the profit from air navigation charges under income tax law and the result under the regulations governing charges is not considered when determining income and thus is not subject to tax.

### **37.4 Integration of DFS Energy**

242 The assets and liabilities of DFS Energy are included as part of the operating assets in the cost-base for determining charges.

### 37.5 Integration of the commercial business

243 The integration of the commercial business improves the transparency as regards the internal sourcing of products and services and allows a transparent separation between the regulated and commercial business.

### 37.6 Reconciliation and indicators of the regulated business

<b>Reconciliation (regulated equity)</b>	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>
Group equity recognised on the balance sheet	-1,127,625	-830,845
Catch-up effects not yet accounted for	325,773	385,191
Deferred taxes on this amount	-2,967	-1,310
Occupational pensions from a charges-related perspective	1,377,798	744,554
Change in equity relevant to charges (closing deficit)	393,178	478,662
Consolidation/reconciliation	-8,751	-10,524
<b>Regulated equity</b>	<b>957,406</b>	<b>765,728</b>

<b>Indicators of the regulated business</b>	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>
Equity ratio	23.76%	22.50%
Return on equity	9.04%	16.14%
Net income	86,587	123,586
EBIT	131,139	163,297
Borrowings	3,071,824	2,638,233
Debt ratio	76.24%	77.50%
Return on total assets	2.15%	3.63%
Leverage ratio	-14.34%	-4.68%
Liquid funds	387,004	569,345
Short-term securities	557,243	144,902
Non-current financial liabilities	357,614	526,404
of which QTE transaction	47,614	53,321
Current financial liabilities	8,864	28,459
of which QTE transaction	7,457	5,541
Financial assets (+) liabilities (-) net	577,769	159,384

- 244 This perspective includes the future flow of charges approved by the supervisory authorities and delivers a clear picture of the capital structure, debts and cash flows. Assets and liabilities that are subject in full or in part to economic regulation are transferred to a regulatory asset base, i.e. an accounting of the results and financial position from the perspective of economic regulation.
- 245 The view of the DFS Group is supported by the supplement to Section 31b(3) of the German Aviation Act (LuftVG). This regulation obliges the Group to determine its taxes based on the charges-related result.
- 246 The assessment of the consolidated financial risks of the DFS Group is given by the rating awarded by the rating agencies.

<b>Ratings</b>			
	<b>Long-term</b>	<b>Short-term</b>	<b>Outlook</b>
Standard & Poor's	AAA	A-1+	Stable
Moody's	Aa3	P-1	Stable

### 38 Contingent liabilities and other financial obligations

#### 38.1 Contingent liabilities

<b>Maturities of sureties</b>					
	<b>Up to 1 year</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Indefinite term</b>	<b>Total</b>
	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
2016	329	499	0	245	1,073
2015	38	0	0	168	206

- 247 No provisions were recognised for the obligations shown because the risk of use was deemed to have a low probability. There are no uncertainties as regards the amount or maturity of the contingent liabilities.
- 248 Sureties relate to guarantees for advance payments, warranties, contract fulfilment and tender guarantees for simulation, radar data and air navigation facilities. At the end of the business year, there were no obligations for the issuance or endorsement of guarantees covering bills of exchange and cheques.

## 38.2 Other financial obligations

<b>Due dates of other financial obligations</b>				
	<b>Up to 1 year</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Total</b>
<b>31 Dec 2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Inter-company credit lines to associated companies	1,500	0	0	1,500
of which taken up	0	0	0	0
Capital expenditure commitments for the acquisition of				
intangible assets	16,319	38,295	3,130	57,744
property, plant and equipment	44,062	12,411	2,845	59,318
other	57,463	45,101	1,311	103,875
Rental, leasing, tenancy, maintenance	8,679	10,915	6,508	26,102
Bank guarantee	0	10,000	0	10,000
	128,023	116,722	13,794	258,539
<b>Due dates of other financial obligations</b>				
	<b>Up to 1 year</b>	<b>1 to 5 years</b>	<b>More than 5 years</b>	<b>Total</b>
<b>31 Dec 2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Inter-company credit lines to associated companies	1,500	0	0	1,500
of which taken up	0	0	0	0
Capital expenditure commitments for the acquisition of				
intangible assets	23,108	1,787	0	24,895
property, plant and equipment	30,120	16,288	3,171	49,579
other	44,983	32,929	1,958	79,870
Rental, leasing, tenancy, maintenance	8,134	19,316	17,572	45,022
Bank guarantee	0	0	10,000	10,000
	107,845	70,320	32,701	210,866

249 No provisions were recognised for the obligations shown because the risk of use was deemed to have a low probability. There exist no uncertainties as regards the amount or maturity of the other financial obligations.

250 To cover liquidity needs, the associated company was granted an inter-company credit line which can be taken up as part of the daily cash pool. By doing so, the Group optimises its conditions for cash investments and loans and exploits the advantages of a central, systematic financial planning.

- 251 Capital expenditure obligations relate to the contractual obligations for the purchase of intangible assets as well as property, plant and equipment.

### 39 Contingent assets

There are two separate abstract acknowledgements of debt (*abstrakte Schuldanerkenntnisse* – a standard German law acknowledgement of a borrower's indebtedness) between DFS and FCS:

Effective from	26 April 2006	29 September 2008 / 6 October 2008
Collateral	Registration of a charge	Registration of a charge
Legal basis	Section 1 LuftfzG (Law on Rights regarding Aircraft – <i>Gesetz über Rechte an Flugzeugen</i> )	Section 1 LuftfzG (Law on Rights regarding Aircraft – <i>Gesetz über Rechte an Flugzeugen</i> )
Beneficiary	DFS	DFS
Object	Hawker Beechcraft Super King Air 350	Hawker Beechcraft Super King Air 350
Serial number	FL-473 D-CFMD	FL-626 D-CFME
Local Court	Braunschweig	Braunschweig
Registration	22 August 2006	16 September 2009
Basis	Loan agreement dated March 2006	Loan agreement dated September 2008 / October 2008
Parties to the contract	DFS IBS and FCS	DFS IBS and FCS
Loan 1	€5.50 million for the aircraft FL-473 D-CFMD with a term until 31 December 2022.	€4.30 million for the aircraft FL-626 D-CFME with a term until 31 December 2025.
Loan 2	€3.00 million for the flight inspection system (type Aerodata AeroFIS) with a term until 31 December 2016.	€1.70 million for the flight inspection system (type Aerodata AeroFIS) with a term until 30 December 2019.
Miscellaneous	The loan for the aircraft is collateralised over its entire maturity by an abstract acknowledgement of debt in favour of DFS by means of a liability of €8.50 million. €7.10 million of the volume of the loan have been taken up.	The loan for the aircraft is collateralised over its entire maturity by an abstract acknowledgement of debt in favour of DFS by means of a liability of €6.00 million. €5.20 million of the volume of the loan have been taken up.

## 40 Post-balance-sheet-date events

- 252 At the 64th meeting of the Single Sky Committee on 21 February 2017, the Member States and the European Commission agreed on the retroactive acceptance of the performance plan for the second reference period (2015 until 2019). The DFS Group had already considered these unit rates for this time period, which have now been fixed, in its planning. The reduced and strictly regulated unit rates will probably reduce revenues and therefore negatively impact the results and financial position of the Group in 2017.
- 253 The DFS Group saw no additional post-balance-sheet-date events of material importance, whether individually or as a group, which impact the results and financial position of the Group.

## 41 Auditors' fees

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### Total fees of the auditor under Section 314(1)(9) of the German Commercial Code (HGB)

	31 Dec 2016 €000	31 Dec 2015 €000
Audit of the annual financial statements	181	162
Other assurance services	31	29
Tax advice	0	0
Other services	0	3
	212	194

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## 42 Service concession arrangements

- 254 Under Section 27c of the German Aviation Act (LuftVG), the DFS Group is obliged to perform its sovereign tasks (see section 1.1 in the Group management report). The details of these tasks are regulated by an indefinite framework agreement with the Federal Republic of Germany.
- 255 The law and the framework agreement authorise the Group as the current entrusted air navigation service provider to require the airports under Section 27d of the German Aviation Act (LuftVG) to:
- establish and maintain the necessary facilities and take the necessary structural measures in these facilities; make the necessary facilities available and allow cables to be laid, connected and maintained on the premises,
  - enable the air navigation services personnel to use the infrastructure at aerodromes,
  - ensure that the buildings and rooms made available by the aerodrome operator are provided with power, thermal energy, heating and air-conditioning; perform other utility services and ensure that waste disposal services are rendered.

- 256 In return, the DFS Group reimburses the airports for these costs. If another air navigation service provider is entrusted with these Group duties, the legal and contractual rights and obligations transfer to this air navigation service provider.
- 257 Charges levied are the main source of revenues at the DFS Group and they should cover the planned costs.

#### 42.1 En-route services

- 258 Since 2012, the performance scheme for air navigation services has aimed to improve the overall efficiency across the performance areas of safety, environment, capacity and cost-efficiency for en-route services. The European Commission has laid down the performance targets and alert thresholds for the whole European Union for one reference period. Each reference period comprises five years. To gather experience in the introductory phase, the first reference period was limited to three years (2012-2014). The changes coming in with the second reference period (2015 to 2019) can be found in section 7.2.1 in the Group management report.
- 259 The national supervisory authority, the Federal Supervisory Authority for Air Navigation Services (BAF), then draws up a performance plan at the national or functional airspace block level that is aligned with the performance targets of the European Union. Upon proposal of the national supervisory authorities, Member States adopt their performance plans and communicate them to the Commission. The Commission evaluates the performance plans and suggests, or takes, corrective measures.
- 260 For the first reference period from 2012 to 2014, the Federal Supervisory Authority for Air Navigation Services (BAF) laid down the unit rates for en-route services for the DFS Group. Previously, the business risk the Group was exposed to under the system of full cost recovery had been limited. However, the business risk has risen since the start of economic regulation.
- 261 The cost risks that arise within a reference period impact the profits of the Group directly. However, the traffic risk is spread between the DFS Group and the airspace users. Section 3.1.3 in the Group management report contains information of the split of opportunities and risks stemming from variances in traffic volume.
- 262 The variances are determined by the Federal Supervisory Authority for Air Navigation Services (BAF) and reported to the European Commission and EUROCONTROL. EUROCONTROL checks the differences and submits the adjustments to the representatives of the Member States in the Enlarged Committee for Route Charges. This Committee prepares the adjusted unit rates for en-route services after consultation with the airspace users. These are submitted to the enlarged Commission for final approval.
- 263 The Federal Ministry of Transport and Digital Infrastructure (BMVI) publishes the unit rate for en-route services in the Federal Law Gazette on the basis of the German Ordinance on Route Charges of the Air Navigation Services (FSStrKV) and taking into consideration the EU Regulations on a common charging scheme for air navigation services.

## 42.2 Terminal services

- 264 For terminal services, the Federal Ministry of Transport and Digital Infrastructure (BMVI) lays down a unit rate each year on the basis of the German Ordinance on Terminal Charges of the Air Navigation Services (FSAAKV) and taking into consideration the EU Regulations on a common charging scheme for air navigation services.
- 265 To this end, the DFS Group sends the national supervisory authority, the Federal Supervisory Authority for Air Navigation Services (BAF), a preliminary cost estimate for the coming year. The cost estimate is based on the costs of the last business year and the estimates of the cost development in the current and following business year. The unit rate is calculated from the quotient between the planned costs and the planned traffic volume.
- 266 The Federal Supervisory Authority for Air Navigation Services (BAF) also applies the European regulations for establishing the en-route charges to determine the charges for terminal services. From 2015, the Group has been subject to economic regulation for terminal services (see section 3.1.3 in the Group management report).

## 43 Related party disclosures

### 43.1 Related parties – entities

- 267 In the normal course of business, services are also rendered to related entities. Group companies render services to the DFS Group as well. Within the Group, there are some billing agreements with reciprocal service provision charged as cost allocations. These extensive delivery and service relationships are conducted at arm's length and are no different from the business relationships with other companies.
- 268 During consolidation, the DFS Group eliminates the balances and transactions between the ultimate parent company and the consolidated subsidiaries (related parties). These are not disclosed in the Notes.

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#### Outstanding balances

	Shareholder	Associated companies	Investments
2016	€000	€000	€000
Financial assets		4,872	2,830
Other assets	7,095	71	5
Other liabilities	-7,558	-729	-56
2015	€000	€000	€000
Financial assets		5,993	2,886
Other assets	2,486	157	48
Other liabilities	-3,107	-1,610	-42

Income (+) and expenses (-)	Shareholder	Associated companies	Investments
2016	€000	€000	€000
Revenues	75,584	524	307
Purchased services		-2,863	
Employee expenses	-22,879		
Other operating expenses		-3,394	-141
Interest income		200	
Income from investments			296
2015	€000	€000	€000
Revenues	75,053	523	364
Purchased services		-2,361	
Employee expenses	-27,000		
Other operating expenses		-3,542	-134
Interest income		234	
Income from investments			295

- 269 The DFS Group maintains business relations with the sole controlling Shareholder, the Federal Republic of Germany, and with other companies controlled by it as part of the entrusted sovereign functions for air navigation services. These transactions are conducted at arm's length and are no different from the delivery and service relationships with other companies. DFS avails itself of the exemption in IAS 24.25 and does not disclose information on outstanding balances and transactions with government-related entities.
- 270 The DFS Group aims to exert material influence on the SES initiative of the European Commission as part of its strategic orientation. To this end, the Group has been an active member of the SESAR Joint Undertaking (SJU) since June 2009, along with other leading organisations. This initiative developed and updated the requirements on air traffic management networks, the most suitable technologies and procedures. Since 2014, the SESAR development process has moved to the long-term phase of technical implementation and the setting up of air traffic management (ATM) procedures (deployment management). As part of a cross-industry partnership, the DFS Group won the contract to plan, coordinate and implement a comprehensive modernisation of European airspace within the scope of the deployment management for the time period 2014 to 2020. The task is financed out of the European funding programme, where a total of roughly €3 billion is earmarked for deployment management. The Group is thus able to influence the introduction of new technologies and benefits from the considerable funding as well as from the avoidance of incorrect cost allocation and flawed capital expenditures.

## 43.2 List of shareholdings

### List of shareholdings under Section 313(2)(4) German Commercial Code (HGB)

#### Consolidated companies

	Registered office	Percentage of shareholding in %	Equity €000	Net income €000
DFS IBS	Langen, Germany	100.00	31,916	1,510
DFS U-Kasse (benevolent fund)	Langen, Germany	100.00	2	-13
DFS Energy	Langen, Germany	100.00	5,132	0 <sup>23)</sup>
DFS Aviation Services (formerly TTC)	Langen, Germany	100.00	7,103	0 <sup>24)</sup>
Eisenschmidt	Egelsbach, Germany	100.00	168	0 <sup>24)</sup>
KAT (since 15 April 2016)	Kaufbeuren, Germany	100.00	100	0 <sup>24)</sup>
ANS	London, United Kingdom of Great Britain and Northern Ireland	100.00	£3,679 thousand	‑£1,700 thousand

<sup>23)</sup> There is a profit-and-loss transfer agreement with DFS

<sup>24)</sup> There are profit-and-loss transfer agreements with DFS IBS

#### Associated companies and investments

	Registered office	Percentage of shareholding in %	Equity €000	Net income €000
Associated companies – measurement using equity method:				
FCS	Braunschweig, Germany	55.00	3,579 <sup>25)</sup>	669 <sup>25)</sup>
Investments – measurement using cost method:				
GroupEAD	Madrid, Spain	36.00	1,881 <sup>25)</sup>	129 <sup>25)</sup>
BILSODA	Pullach, Germany	24.90	2,976 <sup>25)</sup>	-98 <sup>25)</sup>
ESSP SAS	Toulouse, France	16.67	9,399 <sup>25)</sup>	3,628 <sup>25)</sup>
TATS	Madrid, Spain	50.00	1,000 <sup>26)</sup>	--
Non-consolidated investments:				
GEAD AP	Wellington, New Zealand	20.00	NZD 703 thousand <sup>27)</sup>	NZD 693 thousand <sup>27)</sup>

<sup>25)</sup> Values as at 31 December 2015

<sup>26)</sup> Equals paid-in equity as at 27 January 2011

<sup>27)</sup> Note that business year runs from 1 July 2014 until 30 June 2015

## 43.3 Related parties – persons

271 Related parties (persons) cover primarily the Board of Managing Directors, Level 1 executives, the Supervisory Board and their family members. There were no material or, in their form or character, atypical reportable transactions between the DFS Group and people in key positions of management and their close families that go beyond existing employment, service or purchasing relationships and their contractual compensation. Note 44 contains disclosures on the emoluments of the Board of Managing Directors and the Supervisory Board.

## 44 Organs of the parent company

### 44.1 Board of Managing Directors

Prof Klaus-Dieter Scheurle, Frankfurt am Main,  
Chairman and Chief Executive Officer

Robert Schickling, Bad Homburg vor der Höhe,  
Managing Director Operations

Dr Michael Hann, Bad Dürkheim,  
Managing Director Human Resources

272 See section 1.4 in the Group management report for the distribution of responsibilities of the Board of Managing Directors

<b>Payments due in the short term for members of the Board of Managing Directors</b>			
	<b>Fixed components (including benefits in kind)</b>	<b>Performance- related components</b>	<b>Total emoluments</b>
<b>2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Prof Klaus-Dieter Scheurle (Chairman)	356	179	535
Robert Schickling	295	156	451
Dr Michael Hann	308	156	464
	959	491	1,450
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Prof Klaus-Dieter Scheurle (Chairman)	335	168	503
Robert Schickling	277	156	433
Dr Michael Hann	288	156	444
	900	480	1,380

273 The DFS Group did not grant any advance payments, loans or benefits to members of the Board of Managing Directors or former Managing Directors on their termination. In addition, it paid no remuneration from consultancy or service contracts.

<b>Post-employment benefits</b>			
	<b>Pension benefits</b>	<b>Pension payments</b>	<b>Expenses for pension benefits earned in the current year <sup>28)</sup></b>
<b>2016</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Prof Klaus-Dieter Scheurle (Chairman)	1,113	0	255
Robert Schickling	2,413	0	129
Dr Michael Hann	1,085	0	347
Former Managing Directors	15,421	749	335
	20,032	749	1,066
<b>2015</b>	<b>€000</b>	<b>€000</b>	<b>€000</b>
Prof Klaus-Dieter Scheurle (Chairman)	730	0	281
Robert Schickling	1,968	0	138
Dr Michael Hann	675	0	224
Former Managing Directors	14,323	735	300
	17,696	735	943
<sup>28)</sup> Service cost and interest cost			

274 There were no other long-term benefits due or share-based compensation.

## 44.2 Supervisory Board

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### Shareholder representatives

**Michael Odenwald**

Chairperson until 21 April 2016  
State Secretary  
Federal Ministry of Transport and Digital  
Infrastructure  
(Member of Supervisory Board until  
21 April 2016)

**Carmen von Bornstaedt-Radbruch**

*Ministerialrätin*  
Federal Ministry of Defence

**Antje Geese**

*Ministerialdirigentin*  
Federal Ministry of Transport and Digital  
Infrastructure  
(Member of Supervisory Board from  
22 April 2016)

**Dr Martina Hinricher**

Chairperson from 22 April 2016  
*Ministerialdirektorin*  
Federal Ministry of Transport and Digital  
Infrastructure

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**Andreas Hoppe**

Colonel (G.S.)  
Federal Ministry of Defence

**Dr Angelika Kreppein**

*Regierungsdirektorin*  
Federal Ministry of Finance

**Dr Edeltraud Leibrock**

Consultant

### Staff representatives

**Markus Siebers**

Deputy Chairperson  
Air traffic controller

**Catja Gräber**

Senior expert data communication service

**Volker Möller**

Air traffic controller

**Peter Schaaf**

Chairperson Central Staff Council  
Air traffic controller

**Andrea Wächter**

Head of Hamburg Tower

**Dirk Wendland**

Systems engineer

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275 In the business year, there were four scheduled ordinary meetings and one extraordinary meeting of the Supervisory Board.

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**Remuneration of the Supervisory Board**

	<b>31 Dec 2016</b>	<b>31 Dec 2015</b>
	<b>€000</b>	<b>€000</b>
Carmen von Bornstaedt-Radbruch	0.80	0.90
Antje Geese	0.60	0.00
Catja Gräber	0.80	0.80
Dr Martina Hinricher	0.90	1.00
Andreas Hoppe	0.90	0.70
Dr Angelika Kreppein	0.70	0.90
Dr Edeltraud Leibrock	0.70	1.00
Volker Möller	0.90	0.80
Michael Odenwald	0.00	0.90
Peter Schaaf	0.40	0.30
Markus Siebers	1.10	1.10
Andrea Wächter	0.80	1.00
Dirk Wendland	0.60	0.60
Members who left in the previous year	0.00	0.30
	<b>9.20</b>	<b>10.30</b>

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- 276 The Articles of Association determine the level of remuneration of the Supervisory Board. The benefits received are made up of a fee for meeting attendance of €80.00 per meeting and a daily allowance of €26.00 per meeting.
- 277 The members of the Supervisory Board received no advances, loans or remuneration from consultancy or service contracts.

**45 Disclosures on the Public Corporate Governance Code (PCGK)**

- 278 The DFS Group is subject to the Public Corporate Governance Code of the Federation (PCGK). The Board of Managing Directors and the Supervisory Board jointly issue a compliance statement each year and publish the corporate governance report on the website of the company.

## Responsibility statement

- 279 The Board of Managing Directors of DFS Deutsche Flugsicherung GmbH issues the following statement, pursuant to Section 37y(1) of the Securities Trading Act (WpHG) in conjunction with Sections 297(2)(4), 315(1)(6) and 315a(1) of the German Commercial Code (HGB).
- 280 To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the results and financial position of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Langen, 11 April 2017

Prof Klaus-Dieter Scheurle  
Chairman and  
CEO

Robert Schickling  
Managing Director  
Operations

Dr Michael Hann  
Managing Director  
Human Resources

Following the result of our audit, we have issued the consolidated financial statements 2016 and the group management report of DFS Deutsche Flugsicherung GmbH, Langen, the following

### **Auditor's report\***

We have audited the consolidated financial statements of DFS Deutsche Flugsicherung GmbH (DFS) – consisting of the balance sheet, statement of comprehensive income, statement of changes in equity, cash flow statement and notes to the consolidated financial statements – together with the group management report for the business year from 1 January to 31 December 2016. The preparation of the consolidated financial statements and the group management report in accordance with the IFRS to be applied within the EU and provisions to be additionally applied according to Section 315a(1) of the German Commercial Code (HGB) are the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in the consolidation, the determination of the entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Company's Board of Management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the group financial statements comply with IFRS as adopted by the EU, the additional requirements of German commercial law pursuant to Section 315a (1) HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements, complies with legal requirements, and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Frankfurt am Main, 14 March 2017 / 11 April 2017

Roever Broenner Susat Mazars GmbH & Co. KG  
*Wirtschaftsprüfungsgesellschaft*  
*Steuerberatungsgesellschaft*

Schorse                      Lächele  
Auditor                      Auditor

\*Courtesy translation; see page 3

# DFS Deutsche Flugsicherung GmbH

## Acronyms and abbreviations

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AD	Airbus Deutschland
ADQ	Aeronautical Data Quality
AfA	Official German Schedule for Deductions for Depreciation – <i>Absetzung für Abnutzung</i>
AG	Public Limited Company – <i>Aktiengesellschaft</i>
AIM	Aeronautical Information Management
AIP	Aeronautical Information Publication
AmtshilfeRLUmG	German Law on the Implementation of the Mutual Assistance Directive as well as on the Change to Tax Regulations – <i>Amtshilfe richtlinie-Umsetzungsgesetz</i>
ANS	Air Navigation Solutions Limited, London, United Kingdom of Great Britain and Northern Ireland
ANSP	Air Navigation Service Provider
AS	Aeronautical Solutions
ATC	Air Traffic Control
ATCAS	Air Traffic Control Automation System
ATM	Air Traffic Management
ATS	Air Traffic Services
AUC	Assets under Construction
AUSTRO CONTROL	Austro Control Österreichische Gesellschaft für Zivilluftfahrt mbH, Vienna, Austria (Austrian air navigation service provider)
BAF	Federal Supervisory Authority for Air Navigation Services – <i>Bundesaufsichtsamt für Flugsicherung</i>
BDL	German Aviation Association – <i>Bundesverband der Deutschen Luftverkehrswirtschaft</i>
BFS	Federal Administration of Air Navigation Services – <i>Bundesanstalt für Flugsicherung</i>
BGBI	German Federal Law Gazette – <i>Bundesgesetzblatt</i>
BilMoG	German Act to Modernise Accounting Law – <i>Bilanzrechtsmodernisierungsgesetz</i>
BilReG	German Accounting Law Reform Act – <i>Bilanzrechtsreformgesetz</i>
BILSODA	BILSODA GmbH & Co. KG, Pullach, Germany
BMF	Federal Ministry of Finance – <i>Bundesministerium der Finanzen</i>
BMVg	Federal Ministry of Defence – <i>Bundesministerium der Verteidigung</i>
BMVI	Federal Ministry of Transport and Digital Infrastructure – <i>Bundesministerium für Verkehr und digitale Infrastruktur</i>
BMWi	Federal Ministry for Economic Affairs and Energy – <i>Bundesministerium für Wirtschaft und Energie</i>
CAA	Civil Aviation Authority, UK
CEF	Connecting Europe Facility
CHF	Swiss Franc
CMS	Compliance Management System
CNS	Communications, Navigation and Surveillance
Co.	Compagnie
COOPANS	CO-OPERation of Air Navigation Service providers (International partnership between five air navigation service providers from Austria, Sweden, Ireland, Denmark and Croatia)
DCF	Discounted Cash Flow
de	Country Code Domain for Germany
DFS	DFS Deutsche Flugsicherung GmbH, Langen, Germany
DFS Energy	DFS Energy GmbH, Langen, Germany
DFS IBS	DFS International Business Services GmbH, Langen, Germany
DFS U-Kasse	DFS Unterstützungskasse GmbH, Langen, Germany (Benevolent fund)

DLH	Lufthansa German Airlines – <i>Deutsche Lufthansa</i>
DM	Deutschmark – German Mark
DRS	Dresden International Airport
DSNA	Direction des Services de la Navigation Aérienne (French air navigation service provider)
DVOR	Doppler VHF (Very High Frequency) Omnidirectional Radio Range
DWD	German Meteorological Service – <i>Deutscher Wetterdienst</i>
e. V.	Registered Association – <i>eingetragener Verein</i>
EAD	European AIS (Aeronautical Information Service) Database
EANP	European Air Navigation Planning Group (ICAO)
EASA	European Aviation Safety Agency
EBIT	Earnings before Interest and Taxes
EC	European Community
EGNOS	European Geostationary Navigation Overlay System Services
Eisenschmidt	R. Eisenschmidt GmbH, Egelsbach, Germany
EMU	Economic and Monetary Union
ENAIRE	Entidad Pública Empresarial Aeropuertos Españoles y Navegación Aérea, Madrid, Spain (Spanish air navigation service provider)
ENAV	ENAV S.p.A. - Società Nazionale per l'Assistenza al Volo (Italian air navigation service provider)
ERP	Enterprise Resource Planning
ERF	Erfurt Weimar Airport
ESSP SAS	European Satellite Services Provider Société par Actions Simplifiée, Toulouse, France
EU	European Union
EUR	Euro
EURIBOR	Euro InterBank Offered Rate
EUROCONTROL	European Organisation for the Safety of Air Navigation, Brussels, Belgium
FAB(EC)	Functional Airspace Block (Europe Central)
FCS	FCS Flight Calibration Services GmbH, Braunschweig, Germany
FIR	Flight Information Region
FSAKV	German Ordinance on Terminal Charges of the Air Navigation Services – <i>Flugsicherungs-An- und Abflug-Kostenverordnung</i>
FS-AuftragsV	German Regulation concerning the Commissioning of an Air Navigation Services Enterprise – <i>Verordnung zur Beauftragung eines Flugsicherungsunternehmens</i>
FS-DiensteVO	German Service Provision Regulation – <i>Flugsicherungsdienste-Verordnung</i>
FS-DurchführungsV	German Air Navigation Services Regulation – <i>Verordnung über die Durchführung der Flugsicherung</i>
FSStrKV	German Regulation on Route Charges – <i>Flugsicherungs-Streckenkostenverordnung</i>
FührposGleichberG	German Law on the Equal Participation of Women and Men in Management Positions in the Private Sector and in Public Service – <i>Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst</i>
GAL	Gatwick Airport Limited
GBP	Pound Sterling
GdF	Air Navigation Services Union - <i>Gewerkschaft der Flugsicherung</i>
GEAD	GroupEAD Europe S. L., Madrid, Spain
GEAD AP	GroupEAD Asia-Pacific Ltd., Wellington, New Zealand
GmbH	Limited Liability Company – <i>Gesellschaft mit beschränkter Haftung</i>
GoB	German Principles of Proper Accounting – <i>Grundsätze ordnungsmäßiger Buchführung</i>
GPS	Global Positioning System
HGB	German Commercial Code – <i>Handelsgesetzbuch</i>
HRB	Commercial Register B – <i>Handelsregister Abteilung B</i>

i. L.	In Liquidation
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
iCAS	iTEC (interoperability Through European Collaboration) Centre Automation System
ICS	Internal Control System
IFR	Instrument Flight Rules
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
ISIS	Improved Speech Integrated System
ISO	International Organisation for Standardisation
iTEC	interoperability Through European Collaboration
JPY	Japanese Yen
KARLDAP	Karlsruhe Automated Data Processing and Display System
KAT	Kaufbeuren ATM Training GmbH, Kaufbeuren, Germany
KfW	Kreditanstalt für Wiederaufbau (German government-owned development bank)
KG	Partnership – <i>Kommanditgesellschaft</i>
KTV	Collective Agreement on Health and Long-term Care Insurance at DFS – <i>Kranken- und Pflegeversicherungstarifvertrag</i>
LBA	Federal Aviation Office - <i>Luftfahrt-Bundesamt</i>
LEJ	Leipzig Halle Airport
Ltd.	Limited
LuftfzG	German Law on Rights regarding Aircraft – <i>Gesetze über Rechte an Flugzeugen</i>
LuftVG	German Aviation Act – <i>Luftverkehrsgesetz</i>
LuftVStFestV	German Law Laying Down German Air Transport Tax – <i>Luftverkehrssteuer-Festlegungsverordnung</i>
LuftVStG	German Air Transport Tax – <i>Luftverkehrssteuergesetz</i>
MaRS	Modernisation and Replacement of Surveillance Infrastructure
MUAC	Maastricht Upper Area Control Centre
MUSE	Munich Replacement of the Voice Switching System – <i>München Sprachvermittlung Erneuerung</i>
n	Represents the Current Business Year
NATS	National Air Traffic Services, United Kingdom of Great Britain and Northern Ireland (UK air navigation service provider)
NLS	Navigation and Landing System
NORACON	NORth European and Austrian CONSortium (International consortium of nine air navigation service providers from Austria, Norway, Estonia, Finland, Iceland, Ireland, Sweden and Denmark)
NORD/LB	Norddeutsche Landesbank ( <i>Landesbank</i> of Lower Saxony and Saxony-Anhalt)
NZD	New Zealand Dollar
OAT	Operational Air Traffic
OCI	Other Comprehensive Income
P1	Project 1
PANSA	Polish Air Navigation Services Agency
PCGK	German Public Corporate Governance Code – <i>Public Corporate Governance Kodex</i>
PSS	Paperless Strip System
QTE	Qualified Technological Equipment
RASUM	Radio Site Upgrade and Modernisation
RMC	Risk Management Committee

RMS	Risk Management System
RP	Reference Period
RTC	Remote Tower Control
S.A.	Société Anonyme
S.L.	Sociedad de Responsabilidad Limitada
SCN	Saarbrücken Airport
SDA	SESAR Deployment Alliance
SES	Single European Sky
SESAR	Single European Sky Air Traffic Management Research
SJU	SESAR Joint Undertaking
SKYNAV S.A.	SKYNAV Société Anonyme, Awans, Belgium
STATFOR	Statistics and Forecast Service (at EUROCONTROL)
TATS	Tower Air Traffic Services S. L., Madrid, Spain
TranspRLG	Transparency Directive Implementation Act – <i>Transparenzrichtlinie-Umsetzungsgesetz</i>
TTC	The Tower Company GmbH, Langen, Germany
TVöD	Collective Agreement for the Public Service – <i>Tarifvertrag für den öffentlichen Dienst</i>
UAS	Unmanned Aircraft System
UIR	Upper Flight Information Region
USD	United States Dollar
ÜVerstV	Collective Agreement on Pensions and Transitional Payments at DFS – <i>Übergangsversorgungstarifvertrag</i>
VAFORIT	Very Advanced Flight Data Processing Operational Requirements Implementation
VAG	German Insurance Supervision Act – <i>Versicherungsaufsichtsgesetz</i>
VaR	Value at Risk
VerstV	Collective Agreement on Pensions at DFS – <i>Versorgungstarifvertrag</i>
VFR	Visual Flight Rules
VHF	Very High Frequency
VOR	VHF Omnidirectional Radio Range
VTV	Collective Agreement on Remuneration at DFS – <i>Vergütungstarifvertrag</i>
VTV-A	Collective Agreement covering Remuneration for Apprentices at DFS – <i>Vergütungstarifvertrag für Auszubildende</i>
WACC	Weighted Average Cost of Capital
WpHG	German Securities Trading Act – <i>Wertpapierhandelsgesetz</i>
ZTV	Collective Agreement Covering Allowances at DFS – <i>Zulagentarifvertrag</i>

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