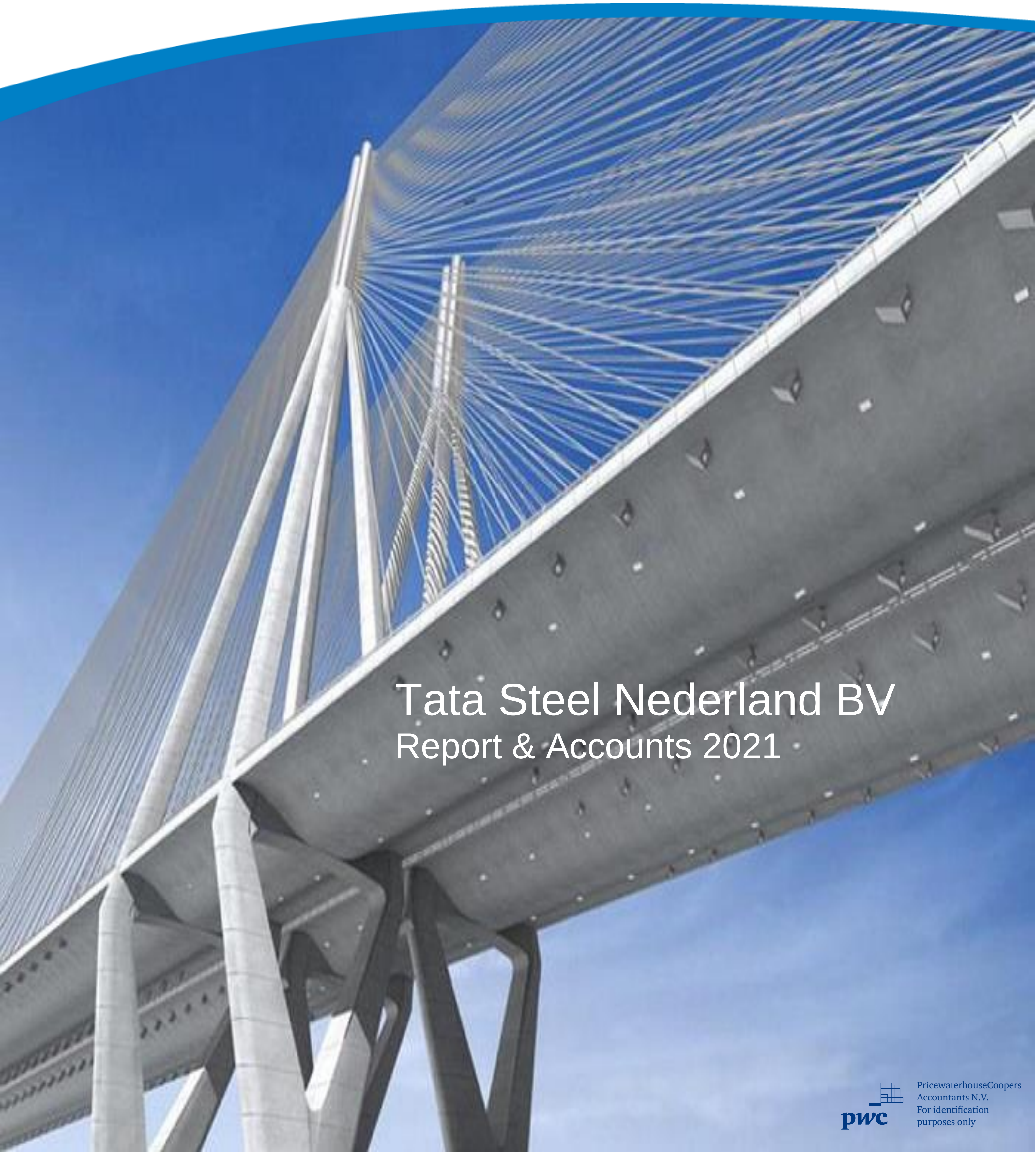

Tata Steel Nederland BV
Report & Accounts 2021

Contents

A. Report of the Supervisory Board

Introduction

The Supervisory Board (hereafter: 'the Board') supervises the policies pursued by the Board of Management (hereafter: 'the BoM') and the general course of affairs of Tata Steel Nederland B.V. (hereafter: 'TSN' or "Company"). The Board takes into account the interests of all the Company's stakeholders, and advises the BoM thereon. The Board regards good corporate governance as an essential foundation for the long-term success of TSN and the Tata Steel Group, and an essential element to the delivery of its strategy.

Composition of the Board

The members of the Board are appointed by the General Meeting of Shareholders in TSN, at the nomination of the Board itself. The Board and its members are not bound by any instructions and shall not receive a binding mandate. At least half of the members of the Board are not in any way involved in the management or supervision of companies belonging to the Tata Steel Group. A quarter of the members of the Board is female. The board will strive for equal representation with future appointments. Every third member of the Board is appointed considering the enhanced right of recommendation of the Central Works Council of TSN. During the year, the Board consisted of Mr. P.M.M. Blauwhoff (Chairman), Mr. M.J.L. Jonkhart, Mrs. L.M.T. Boeren and Mr. H. Adam. Considering its relatively limited size, the Board has not established formal separate commissions. Nevertheless, Mr. Jonkhart has a focus on audit matters besides his regular duties as a member.

Meetings and activities

Twelve meetings of the Board were held during the year. All the Board members were present at each of these Board meetings. During the year the Board also held almost every week informal meetings to discuss developments, mostly in relation to the COVID-19 crisis, potential acquisition, separation and environmental related topics. In addition, members of the Board attended Central Consultative Meetings of the BoM and the Central Works Council, providing information on the meetings of the Board. From time to time they interacted with management and members of the Central Works Council outside the formal meetings, both collectively and individually.

On 13 November 2020, TSN's ultimate shareholder Tata Steel Ltd. (TSL) announced that it had initiated discussions with Swedish steelmaker SSAB based on interest received for the potential acquisition of Tata Steel Netherland's business, including the IJmuiden steelworks. Moreover, TSL announced that the process to separate its Dutch activities consisting of TSN and British Steel Nederland International BV (hereafter: "BSNI") and Tata Steel UK had started immediately and that separate strategic paths for the Netherlands and UK business would be pursued in the future. In January 2021, discussions between TSL and SSAB on a possible acquisition of TSN were concluded without success. Though this outcome was disappointing, the SB is confident that TSN is well positioned to become the leading European manufacturer of green steel in the coming decades. TSL confirmed that the separation of TSN and TSUK would continue to be pursued. Further to these developments, the Board and the BoM had various periodic meetings with the CEO and CFO of TSL. During these meetings the governance arrangements to apply after separation were discussed. Moreover, in these meetings the Board and BoM regularly informed TSL on developments regarding environmental matters and measures and discussed several scenarios for decarbonisation of the IJmuiden site.

The Board was briefed in all the regular meetings on the developments regarding the company and its financial, business, operational and safety, health & environment performance, the status of the plans for decarbonisation of the IJmuiden site, the status of the STAR investment schemes and the overall license to operate. The Board also discussed the operational and financial risks and their mitigations. In addition, the Board discussed several recurring subjects, such as the impact of the COVID-19 crisis, HR related matters, operational and financial risk management, IT and IT related risks, the financial situation, internal and external audit activities and integrity, fraud and compliance. Specific attention was paid to environmental matters related to the IJmuiden site, including the decision to implement the Roadmap+, a €300M investment programme aimed at improving local environmental performance by realising significant reductions of dust emissions, noise and odour pollution, which was announced in December 2020. To affirm that TSN takes the concerns of the surrounding community seriously, it was decided in May 2021 to accelerate the implementation of the Roadmap+ and complete the majority of the projects in 2023. **It** is expected that these measures will lead to substantial and noticeable reductions in the nuisance experienced by local residents.

In its extra meeting on 25 August 2020, the Board discussed and approved the annual accounts for FY2020.

In its extra meeting on 4 September 2020, the main item on the agenda was an assessment of what the best organisational design would be for TSN to address TSN's (financial) underperformance.

In its extra meeting on 28 September 2020, the main item on the agenda was the shareholder's request to amend certain items in the Supervisory Board report and the report of the Board of Management before being prepared to adopt the Annual Accounts for the financial year 2019/20.

In its meeting on 8 October 2020, the main items on the agenda were safety, health and environment, the corona virus and its impact on business continuity, developments on the STAR Investment Programme and the Blast Furnace 6 Repair Programme, the plans for the decarbonisation of the IJmuiden site, the financial position of TSN, strategic assessment of automotive markets and the TSE Transformation Programme.

In its meeting on 1 December 2020, the main items on the agenda were safety, health and environment, COVID-19 and its impact on business continuity, the potential acquisition of TSN by SSAB and the separation of TSN/BSNI and TSUK, the STAR Investment Programme and Blast Furnace 6 Repair Programme, the plans for the decarbonisation of the IJmuiden site, the financial position of TSN and packaging steel.

In its extra meeting on 8 December 2020, the Supervisory Board was provided with an update on the plans for the decarbonisation of the IJmuiden site.

In its extra meeting on 18 December 2020, the main item on the agenda was the separation of TSN/BSNI and TSUK.

In its extra meeting on 12 February 2021, the main items on the agenda were TSN's environment & sustainability communication plan and the separation of TSN/BSNI and TSUK.

In its meeting on 4 March 2021, the main items on the agenda were safety, health and environment, including the Roadmap+, TSN's environment & sustainability communication plan and the plans for the decarbonisation of the IJmuiden site, the corona virus and its impact on business continuity, TSN's short and medium term strategy, the separation of TSN/BSNI and TSUK, the financial position of TSN and Optimal Cash Management part XII.

In its extra meeting on 12 March 2021, the main item on the agenda was TSN's environment & sustainability communication plan.

In its extra meeting on 6 April 2021, the main item on the agenda was the BF6 Repair Programme.

In its meeting on 29 April 2021, the main items on the agenda were safety, health and environment, including the accelerated execution of the Roadmap+, the corona virus and its impact on business continuity, TSN's asset strategy, the separation of TSN/BSNI and TSUK, the STAR Investment Programme and Blast Furnace 6 Repair Programme, the plans for the decarbonisation of the IJmuiden site and the financial position of TSN.

Financial statements

For the financial year 2020/21, the consolidated income statement shows a net profit after taxation (including minority interests) of €(139)m compared to a net loss after taxation (including minority interests) of €(125)m in 2019/20, due to lower commercial results and lower volumes.

Pursuant to Article 29 of the Articles of Association, we hereby present the Annual Accounts for adoption by the General Meeting of Shareholders of TSN. The auditors, PricewaterhouseCoopers Accountants N.V., have examined the Annual Accounts for 2021 and have issued an unqualified auditor's opinion. The members of the BoM and the Board, after discussion with the external auditors, have approved these Annual Accounts.

We recommend that the General Meeting of Shareholders adopts the Annual Accounts for the financial year 2020/21 as presented, and discharges the members of the BoM and the Board of responsibility in respect of their management and supervision respectively.

A. Report of the Supervisory Board

The Board is grateful to the BoM and all TSN employees for their efforts and dedication during the financial year 2020/21 and the positive way they have continued to serve our clients and the company under the very difficult COVID-19 circumstances.

On behalf of the Supervisory Board

P.M.M. Blauwhoff, Chairman

S.E.J. Schippers, Secretary

IJmuiden, 28 June 2021

B. Report of the Board of Management

Introduction

The Board of Management ('BoM') herewith presents the annual report together with the audited accounts of TSN, and its subsidiary companies, for the year ended 31 March 2021 ('FY21').

TSN is a wholly owned subsidiary of Tata Steel Netherlands Holdings B.V. ('TSNH'), an unlisted company based in the Netherlands. TSNH is owned by Tata Steel Europe Limited ('TSE'), an unlisted company based in the UK. The ultimate parent company is Tata Steel Limited ('TSL'), which is a company incorporated in India with shares listed on BSE Limited (formerly the Bombay Stock Exchange Limited), Mumbai and the National Stock Exchange of India, and with global depositary receipts listed on the London and the Luxembourg Stock Exchanges.

TSN holds all shares in Tata Steel IJmuiden B.V. ('TSIJ'), whose main assets are the steelmaking hub Strip Products Mainland Europe ('SPMLE') and Packaging manufacturing activities in the Netherlands and Belgium. Other subsidiaries cover various activities in markets such as building & construction, automotive, colour coated steels and packaging, both in Europe and the rest of the world.

The BoM hereby declares that, to the best of its knowledge, the Company's financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole and that the Report of the BoM gives a true and fair view concerning the position at 31 March 2021, the development and performance of the business during the financial year of the Company and the undertakings included in the consolidation taken as a whole.

The BoM would like to express its gratitude to all TSN employees for their contributions to the Company's performance in FY21 and their support to realise the result for the current year.

Principal business activities, objectives and strategy

The principal activities of the Company comprise the manufacture and sale of steel products throughout the world. The major operating site of TSN is the integrated steelworks at IJmuiden in the Netherlands, which also has a number of rolling mills and processing lines. In FY21 it produced 6.2mt of carbon steel by the basic oxygen steelmaking method (FY20: 6.8mt). Further processing is done at other TSN sites, including the coating works in Maubeuge, France, the galvanizing line in Flemalle, Belgium, the tube mills in Oosterhout, Zwijndrecht and Maastricht, the Netherlands, the cold narrow strip mills and plating lines in Düsseldorf, Germany, and in Warren and Bethlehem, USA. TSN has an extensive network, both in the EU and outside the EU, of sales offices, stockholders, joint ventures or similar arrangements, such as agents, in various markets for the distribution and further processing of steel products. The Company organises its commercial activities into strategic sales sectors and these sales sector teams identify demand, which is met from a single, pan-European, supply chain function. TSN's principal end-markets are the automotive, engineering, packaging and construction sectors, Europe being the most important market.

The Company's main business is Strip Products Mainland Europe ('SPMLE'). Other large businesses are Packaging, Tubes, Distribution and Building Systems.

TSN's strategic focus is to be the leading European steel business that is sustainable in every sense through:

- Creating long-term value for its stakeholders within a sound financial framework;
- Transforming towards becoming a carbon neutral steelmaker;
- Improving TSN's local environmental footprint by addressing concerns around odour, noise and dust emissions;
- Maintaining a top quartile cost position in Europe;
- Continuously improving the service performance;
- Continuing to move the product sales mix to more attractive segments like automotive and construction markets; and
- Capturing growth opportunities with new and existing customers.

Important for the future of the Company is the investment program referred to as the Strategic Asset Roadmap (STAR). This program will enable a state-of-the art asset base and an extension of the product portfolio in high value products whilst at the same time maintaining the Company's low-cost position in Europe. TSN can grow in high-value markets, such as Automotive, Lifting & Excavating, Packaging and Building Systems. This requires a complete product portfolio, very stable production and the highest delivery performance. Targeted investments will allow TSN to meet these requirements and will contribute to a sustainable profit for Tata Steel in IJmuiden. In FY18, the first series of investments from this programme have been initiated. In the summer stop of 2019, the first step in increased hot rolled capabilities and the first step in continuous cold rolling was executed. In the summer stop of 2020, the second step in increased hot rolled capabilities and the second step in continuous cold rolling was executed. In addition, a second STAR programme is being developed.

TSN started the year against the backdrop of the COVID-19 pandemic which caused a significant drop in steel demand and created challenges for TSN's production facilities and for the health of employees. In the first quarter of the financial year, demand for the Group's steel products was down by about 20% due to COVID-19 with certain sectors such as automotive experiencing a sharper decline than others, such as packaging, where demand was largely unaffected. In the second half of the financial year, demand for TSN's steel products rebounded strongly with significant increases in steel selling prices towards the end of the year. TSN requested and received COVID related government support, in particular from the NOW-scheme and in by payroll tax deferrals. TSN ensured a coordinated approach in order to protect the health and wellbeing of employees with those who could work from home doing so, supported by the appropriate tools, systems, and policies in line with national requirements. The manufacturing processes continued to operate with new social distancing practices and solutions deployed.

Throughout the year TSN continued to build on its successful company-wide Transformation programme to improve the performance of the business, helping it to become more sustainable and enabling investments necessary to secure its long-term future. Improvements in performance came from productivity improvements, increased sales of higher-value steels, and employment cost savings.

On 13 November 2020 TSL announced that it had initiated discussions with SSAB in Sweden based on interest received for the potential acquisition of TSE's Netherlands business. In addition TSE initiated a process to separate Tata Steel Netherlands and Tata Steel UK in order to pursue separate strategic paths for the Netherlands and UK businesses. However, on 29 January 2021, discussions with SSAB about a possible sale of the Netherlands business ended after SSAB announced that there were limited possibilities to integrate the Netherlands business into its strategic framework. Despite the conclusion of the sales process, the process to separate the Netherlands and UK business continues with the aim to conclude separation in 2021/22 once the detail of the separation has been agreed with various subsidiary boards and employee representatives.

Across the wider TSE Group there is a focus on simplifying the corporate structure by reducing the number of separate legal entities. This is intended to reduce costs, reduce complexity, aid in transparency and improve corporate governance. As part of this wider goal during the year TSN has eliminated 5 of its non-trading subsidiaries. This was achieved by entering 2 non-trading subsidiaries into liquidation and merging Tata Steel Europe Metals Trading B.V. into Tata Steel IJmuiden B.V., merging Tata Steel Europe Distribution B.V. into Tata Steel Nederland Services B.V., and merging CBS Investissements SAS into Tata Steel Batiments et Systemes SAS. For full details of companies involved please see the full subsidiary listing in note 33 of the consolidated accounts.

Dynamics of the business

The steel industry is cyclical. Financial performance is affected by general macroeconomic conditions that set the demand for steel from downstream industries, as well as by available global production capacity, raw material prices and exchange rate relativities. As integrated steel players seek to maintain high capacity utilisation, changes in margins across regions lead to changes in the geographical sales pattern. As a result, in addition to market developments in Europe, changes in the global market for steel influence the financial performance of TSN.

Macroeconomic environment

Economic growth in 2020 was heavily affected by the COVID-19 pandemic. The impact of the lockdowns throughout the world was mitigated by various forms of government stimulus. Despite the stimulus, global GDP growth declined by -3.7%, its lowest since 1946 (2019: increase of 2.5%). In China GDP growth decelerated but remained positive at 2.0%, after a significant rebound in the second half of the year (2019: 6.0%). The EU economy declined by -6.3% (2019: growth of 1.5%) and the UK economy declined by -9.8% (2019: growth of 1.4%). Both services and manufacturing were negatively impacted by the lockdowns and whilst manufacturing recovery came back quickly, the recovery for services has been slower.

Steel demand and production

Global steel demand declined in 2020 by -0.2% in line with the adverse macroeconomic conditions (2019: growth of 3.7%). Whilst demand for steel in China increased strongly at 9.1% (2019: 9.1%), steel demand in the EU declined by -11.4% (2019: -5.4%). In the EU, the automotive sector was impacted significantly by the lockdowns in the beginning of 2020. The production of vehicles came almost to a standstill in April. For the full year the number of vehicles produced declined by -24.2%. Machinery and construction were also impacted by the pandemic and output declined by -12.3% and -4.4% respectively.

In 2020 global steel production declined by -0.9% (2019: growth of 3.1%). Steel production in China increased by 5.9% (2019: 7.9%) and equated to 58% of global steel production. In the EU production was reduced by -12.0% (2019: -6.4%).

Raw materials and steel prices

The principal raw materials used in TSN's carbon steelmaking processes are iron ore, metallurgical coal and steel scrap. The market reference price for iron ore fines (China CFR 62%) increased in 2020/21 to US$128/t (+$33/t). The price increased due to strong demand from China. The hard coking coal spot price (Australia FOB) decreased to US$117/t (-$48/t) as demand from China was relatively low and China stopped importing coal from Australia. In October 2020 the Chinese authorities implemented a ban on Australian coal. As a consequence of this, the steel mills started to buy coal from, amongst others, Canada, the US and Mongolia instead. The German benchmark scrap price (Sorte 2/8) increased to €241/t (+€21/t) compared to the previous financial year.

The price of CO2 increased in 2020/21 to €28/t (+€3/t), reaching an all-time high in March 2021 at €41/t. Reforms of the EU Emissions Trading System have reduced the supply of permits causing the price to rise. Also, the carbon price was supported by the raising of the target by the EU to reduce emissions by at least 55% by the year 2030, instead of 40% previously.

The European steel spot Hot Rolled Coil price (Germany, parity point) increased in 2020/21 to €534/t (+€65/t). Margins increased strongly in the second half of the fiscal year as the demand for steel recovered whilst supply was limited.

Trade

In 2020 imports into the EU declined to 21.2Mt (2019: 25.4Mt). Low margins made it less profitable for exporters to sell material into the EU. In 2020 the market share of imports in the EU declined to 14.5% (2019: 15.2%). The market share of imports in the EU remains high historically.

The EU remains a net importer of steel with net imports of 3.5Mt (imports: 21.2Mt, exports: 17.7Mt). The EU became a net importer in 2015.

Financial review

The Company's turnover decreased from €4,709m in FY20 to €4,347m in FY21 primarily due to the Coronavirus pandemic which caused a sharp reduction in demand in the first half of the year. Both demand and selling prices started to recover in the second half of the year once the initial disruption of national lockdowns have passed. Operating loss increased from €(176)m in FY20 to €(215)m in FY21, mainly due to lower commercial results and lower volumes. The result before taxation decreased from €(175)m in FY20 to €(213)m in FY21. The consolidated net loss after taxation (including minority interests) amounted to €(139)m, a decrease of €14m compared to FY20.

Consolidated capital and reserves (including non-controlling interests) decreased by €114m to €2,548m at the end of FY21.

The decrease of €114m consisted of:

- Loss for the period of €(139)m;
- Other comprehensive profit for the year of €25m mainly attributable to profits arising on cash flow hedges.

Net cash flow from operating activities totalled €222m, an decrease of €118m compared with FY20. Net cash flow from investment activities amounted to €(298)m (FY20: €(302)m). Including movements in cash flow from financing activities, the net movement in cash and cash equivalents amounted to an inflow of €38m (FY20: €22m inflow). This was supported by the introduction of a non-recourse debtor securitisation programme of €200m as well as by deferral of payroll taxes.

An important strength of TSN is its solid balance sheet, with only a limited level of borrowing.

TSN has a revolving credit facility in place, agreed in 2020, of €150m for three years (this facility may be extended up to a maximum of six years if certain conditions are met). This facility is for the exclusive use of TSN. TSN also has access to a €400m intercompany loan facility with Tata Steel UK Holdings Ltd ('TSUKH') and TSNH expiring on 1 April 2023.

At the end of the financial year, no money had been drawn by TSN under the revolving credit facility and no drawings were made under the intercompany loan facility.

Depending on TSN's actual cash positions and its cash flow forecasts and considering the Company's Policy for Surplus Cash, various amounts have been lent to TSNH and TSUK for various periods. . The Policy for Surplus Cash will expire by 1 November 2021. No dividends were paid in FY21 (FY20: nil).

TSN's financial risk management is based upon sound economic objectives and good corporate practice. The Group's main financial risks are related to the availability of sufficient funds to meet its business needs, including the ability to continue the strategic investments in the STAR program and meeting its sustainability ambitions. To manage this risk, the Group continues to focus on generating positive cash flows and keeping sufficient access to internal and external funding possibilities, including government support for decarbonisation investments. Despite the implications of COVID-19 and associated uncertainties, as further described in the Annual Accounts on page 23, the Group is confident that the financial risks are managed to an acceptable level.

Other financial risks relate to movements in interest rates, exchange rates and commodity costs. Derivative and other financial instruments are used to manage any exposures where considered appropriate. Further details of its financial risks, and the way the Group mitigates them, are set out in note 20.

Capital expenditure

Capital expenditure on tangible fixed assets (including loose plant, tools and spares additions) in FY21 amounted to €287m (FY20: €300m). The main projects included within the Strip Products Mainland Europe business, significant capital expenditure on the Strategic Asset Roadmap Programme ('STAR') to support the strategic growth of differentiated, high value products in the automotive, lifting and excavating, and energy and power market sectors. Key STAR activities during 2020/21 included further work on the upgrade of a Cold Mill to enhance its reduction capabilities and work towards the installation of a new walking beam furnace for the Hot Mill (this scheme also reduces energy consumption so supports the national energy agreement with the Dutch government). In addition, spend was incurred on a scheme at the Sinter plant to reduce dust emissions along with initial work on the repair of a blast furnace at IJmuiden. Other major projects ongoing throughout the year in SPMLE included the renovation of the ovens in the coke & gas plants. Significant capital expenditure on intangible fixed assets has been committed to the upgrade of the manufacturing execution systems of Tata Steel IJmuiden with the Smart Steel Factory project. The site invested in several process safety and environmental projects.

TSN Business review

Tata Steel Strip Products MLE

SPMLE manufactures hot rolled, cold rolled and metallic-coated steels for the automotive and transport industries, building and construction, consumer appliances and electronics, and general engineering.

The Lost Time Injuries (LTI) rate is a measure of our safety performance, expressed as the number of incidents leading to absence from work per million worked hours. For SPMLE employees and contractors the combined LTI rate was 1.3 (0.2 better than last year).

The FY21 operating result after restructuring, impairment and disposals was lower than in FY20 due to worse commercial results. Deliveries in FY21 decreased by 409kt compared to last year, particularly in the first half of the year.

The lower deliveries were also the main reason for the reduction in liquid steel production by 570kt compared to FY20.

Tata Steel Packaging

Tata Steel Packaging is a supplier of light-gauge steel for packaging and non-packaging applications, based in IJmuiden, the Netherlands, with an additional production facility in Duffel, Belgium.

The combined LTI rate in FY21 was 2.0, which was 0.7 better than the previous year.

The FY21 operating result after restructuring, impairment and disposals was below the previous year, due to lower margins and lower volumes. Activity levels in the IJmuiden installations were affected by the weaker order book in Europe and by production related issues.

Tata Steel Nederland Tubes

Tata Steel Nederland Tubes is one of Europe's leading manufacturers of welded steel tubes offering one of the widest ranges of welded steel tubes available for greenhouses, construction projects, steel structures and the automotive industry.

There were 1 LTI in FY21, compared to 1 in FY20.

The FY21 operating result after restructuring, impairment and disposals was better than the previous year. The demand in the Construction market remained good and margins on the commodity type of products improved significantly. The strategic improvement plan of Tata Steel Nederland Tubes BV has demonstrated to be successful and the focus will be continued on the recruitment of the order book matching the mill capabilities.

The business made two strategic investments in the year:

- Completion of the cut-to-length facility; and
- Delivery of the EEP programme in Maastricht and Oosterhout.

Tata Steel Distribution Europe

Tata Steel Distribution Europe comprises a network of service centres and further processing capabilities across Europe.

There was 0 LTI in FY21, compared to 1 in FY20.

The FY21 operating result after restructuring, impairment and disposals was better compared to FY20, caused by better margins.

Tata Steel Building Systems

Tata Steel Building Systems comprises a network of manufacturing operations providing a wide range of steel products for the building industry worldwide.

There were 2 LTI's in FY21 compared to 2 in FY20.

The FY21 operating result was better compared to previous year.

During the year the business build a new second SAB panel production facility at Geldermalsen which will be commissioned in FY22.

Tata Steel Colors

Tata Steel Colors is an international business with significant experience in developing and manufacturing colour-coated pre-finished steels. Applications include building envelope, roof and wall cladding, domestic appliances, consumer products, bake ware and specialist applications.

The LTI frequency rate of employees in FY21 was 2.1 compared to 2.5 in the previous year.

The FY21 operating result after restructuring, impairment and disposals was slightly worse compared to the previous year.

Tata Steel Plating

Tata Steel Plating specialises in the rolling, annealing and electrolytic plating of cold-rolled narrow steel strip and its downstream processing. The business is the world's leading supplier of materials for the production of battery cases and its products are used for diverse applications in the automotive industry.

As in FY20, in FY21 there were no LTI's.

The FY21 operating result after restructuring, impairment and disposals was marginally worse than FY20 due to market conditions. In FY21 Tata Steel Plating progressed the implementation of recent new products rather than introducing totally new products.

Tata Steel Regional Market Development Europe

Tata Steel Regional Market Development Europe is the specialist supply chain management business unit of the Tata Steel Europe Group. The business manages an international network of offices in nearly fifty countries and stock facilities in strategic locations worldwide.

As during the previous financial year, there were no LTI's.

The FY21 operating result after restructuring, impairment and disposals was worse than FY20 due to market conditions and lower volumes.

B. Report of the Board of Management

Research & development

Research & Technology programme

Approximately 76% of the TSN technology programme was developed under the governance of the Global Expert Committees ('GECs') of Tata Steel Europe. The GECs cover process and product market sector developments. The remaining capacity was primarily allocated to the Strategic Thrust programme [approx. 18%] for various projects including:

- HIsarna technology: low CO2 and economic ironmaking (at least 20% reduction without Carbon Capture and Storage (CCS), up to 80% with CCS or even negative with also renewable carbon sources). Studies on this plant to further understand the process and to design the next generations are ongoing. Engineering for upscaling (a 1 mln tonnes demo plant) has commenced and will continue in FY22; Two other important aspects that have been worked on are the capture of CO2 (engineering study) and the use of zinc containing reverts;
- Physical vapour deposition, a cold zinc coating technology that allows an extension of TSN's zinc coated product range towards the future UHSS automotive grades well above 1000 MPa. Main focus has been on continuous liquid feeding of zinc into the vacuum chamber;
- Laser texturing of strip surfaces to create unique roughness profiles that combine both formability and paint appearance. This successful project will merge with GEC projects in the coming year;
- Ultra-flexible annealing of tubes that allows multiple end product specifications to be produced from a limited number of chemistries, whilst improving the properties of the end product. The market has been chosen and the project has moved to the GEC automotive. R&D is assisting Tubes in the design of the first production installation;
- Use of advanced analytics to introduce fundamental changes in manufacturing and all TSN business processes like sales and marketing. This also included a model for asset utilisation;
- Collaborating with various selected Universities (DENS programme) to accelerate the development of new products in combination with a fully developed small scale route (300g and 25kg) to perform small experiments to feed models that work on an operational scale (300 tonne);
- Various developments on the blast furnace process, including modelling and experimental testing of ceramic materials, to prolong the operating times for blast furnaces beyond current limits; and
- Studies into alternative reductants and pre-reduced agglomerates have started.

Also this year, additional resources aimed towards Direct Business support [approx.. 6%] to deliver quick wins for the business, where R&D effort can make a difference, were increased. Examples are burner tests for the galvanising lines, strip steering in the Zodiac-line and support to AA waves in various areas.

Process development

The process technology programme in 2020/21 was focused on lean and robust manufacturing processes, better use of raw materials and resolution of quality issues. The programme supports the Group's manufacturing and differentiated product strategy. Key achievements during 2020/21 were:

- Studies to reduce energy consumption by applying alternative sinter granulations;
- Implementation of several improvements in the process routes to improve stability, e.g. the reduction of defects in the galvanizing lines by tuning the burner settings, improved strip steering control to prevent tail end damage, and reducing the number of rejects by improved control of our annealing processes (implementation of the new process control model in the UK Zodiac-line);
- Full implementation of a new process control model in the Hot Strip Mill 2 in IJmuiden; and
- The castability of several new grades was assessed on feasibility to implement in our lines.

Product market sector developments

A key element of the Group's strategy is the development of new steel products. Structured programmes are initiated for all market segments identified by strategic marketing with particular emphasis on the automotive, construction, packaging, engineering and infrastructure sectors.

During 2020/21 a total of 16 (2019/20: 22) new products were introduced into the Group's product portfolio. These included: :

- VALAST 450: abrasion resistant steel grade for the engineering sector;
- XPF 800 for tubes: cost-effective high-strength alternative to Boron steel;
- MagiZinc 310: products with superior corrosion protection, even at cut edges.

People

Health and safety

Health and safety continue to be TSN's first priority as it strives to be the industry benchmark.

Health and safety plans continue to be deployed across the sites, including deployment of approved TSE Health and Safety standards and codes of practice. TSN's safety performance improved in FY21 with the LTI rate reducing from 1.40 in FY20 to 1.21 in FY21. The sickness rate of 4.80% in FY21 - which saw a spike at the end of March 2020 due to the Corona virus - compares to previous fiscal year result of 4.84%.

Pension scheme

Stichting Pensioenfonds Hoogovens (SPH), the main pension scheme within TSN, operates the pension scheme of the IJmuiden site in the Netherlands. At the end of its reporting year 2020, SPH had 9.619 'active' participants and 14.573 people receiving pensions, a decline with 213 and 157 respectively. The 12-months moving average ('policy') funding ratio was 105 % at the end of March 2021.

The Company has agreed with the Dutch Trade Unions to fix the Company's contribution level at 29.5% of pensionable earnings for a one year period from 1 January 2021 to 31 December 2021. The SPH pension scheme is classified in the financial statements as a defined contribution scheme.

Employment policies

There are established arrangements for communication and consultation with Works Councils and Trade Union representatives, to share information on matters of mutual interest.

During the year several requests for advice on organisational and financial subjects were discussed and concluded with the Central Works Council.

In 2020 a new TS IJmuiden collective labour agreement was agreed with the Trade Unions for a one-year period from 1 April 2021 up to 31 March 2022. TSN employees will receive a bonus of gross €300 in both June and October 2021. The gross contribution to the medical expenses is increased from gross €30 to €75 per month. All other collective labour agreements remain the same.

On 10 June 2020 the unions started a series of relay strikes at the IJmuiden works, the first one after 28 years. Main drivers for this industrial action were uncertainty about jobs and the impact of the Transformation Programme on employment and organisation structure. After 25 days of strikes an agreement was reached with the Unions which was also supported by the CWC. Some key elements of this agreement are no forced redundancies and no outsourcing of activities related to the Transformation programme and an extension of the 'Werkgelegenheids Pact (WGP)' and the 'Generatie Pact' until 1 October 2026.

Our employee population is aging. The average age of our workforce is increasing and, due to the higher retirement age, employees will have to continue to work to a higher age than before. These developments call for policies aimed at improving both the ability and the willingness to continue to work longer. Key programmes are agreed with and supported by the Trade Unions and Works Council. An example is the retirement Generation Pact program. Tata Steel and the Trade Unions recognise the importance of employees reaching retirement in a good and healthy way. The Generation Pact offers the opportunity to work less to reduce the workload in the last years before retirement. Various improvement programs aim to keep the total employment costs competitive.

Tata Values

As part of TSE, TSN embraces the five 'Tata Values' which are shared by all Tata companies worldwide and guide expected behaviours and practices throughout the TSE Group (Pioneering, Responsibility, Excellence, Unity, Integrity).
TSE's purpose, values, vision, mission, strategy and key messages are communicated to the Group through internal communications, senior manager updates, senior

leadership conferences, CEO videos and Town Hall briefings.

Sustainability and environment

TSN is facing two key challenges with respect to sustainability and environment. The short term aim of TSN is to reduce both odour pollution, dust emissions and noise by means of the accelerated Roadmap+ and its long term aim is to reduce CO2 emissions of the IJmuiden site by 40% by 2030 (compared to those in 2018).

Sustainable in Every Sense

- TSE has set out its mission to build the leading European steel business that is sustainable in every sense. It aims to play a positive role in shaping a sustainable society for generations to come. The strategy focuses on three pillars:
- As an innovator in carbon neutral steelmaking, TSN is committed to transforming the way sustainable steel is produced, whilst ensuring a safe and healthy work environment and local environment;
- Being a responsible steel supplier: TSN is committed to ensuring its raw materials are sourced from responsible supply chains and in accordance with sustainable business practices; and
- Enabling customers to become more sustainable: TSN strives that its customers can rely on its sustainable solutions and expertise to help them improve the sustainability of their value chains and create the sustainable products which society needs.

TSN creates true value in the way it works together in partnerships with stakeholders. The company's strength lies in its people and the pride they take in their work. Whether producing today's steel, researching tomorrow's new products, or working closely with customers to make them even more successful in their markets, the pride in the people who work in the steel sector drives everything the company does. It makes all those who work for the company want to exceed customer expectations, invest in cleaner, safer and more sustainable processes, give back to the communities they live and work in, and build and maintain a company fit for generations to come.

In order to strengthen its sustainability programme and to secure 3rd party validation of its progress, TSN (through its parent company) became a member of ResponsibleSteel™ in 2020. This is the first globally-present sustainability standard and certification scheme for the steel industry.

Year in Focus

Local community concerns

During 2020/21, representatives of the local community around TSN's IJmuiden steelworks raised important concerns related to the impact of the steelworks on local environmental conditions. TSN received 4,184 complaints from members of the community around IJmuiden during the financial year. These related to concerns about odour, noise and dust.

Public concern translated into interventions by public health bodies, environmental regulators and lawyers representing members of the public during the year:

Two court cases were held in The Hague in October 2020, which were brought against the provincial environmental regulator of TSN's IJmuiden site, the 'Omgevingsdienst' (OD), by the Human, Environment and Transport Inspectorate (Inspectie Leefomgeving en Transport, ILT), the supervising authority of the Dutch Ministry of Infrastructure and Water Management. A case concerning emissions of nitrogen oxides (NOx) from the stoves of Blast Furnace 7 was won by ILT, with the implication that emissions reductions will be required. The other case concerned NOx emissions from the pellet plant. In this matter, ILT lost on procedural grounds but pressure is expected to remain.

In April 2021, RIVM (Dutch Institute for the Environment and Public Health) issued an interim report on public health in the IJmond area, with a focus on acute (instead of chronic) health issues. It reported that approximately 20% of IJmond inhabitants indicated that they had concerns about public health, rising to 35% for those living close to the IJmuiden site. RIVM also concluded that there are peak values in which fine dust levels are higher around IJmuiden than in 'natural areas' and that General Practitioner (GP) visits for certain acute health issues are higher, on average, in the IJmond area than in two reference areas. RIVM couldn't determine whether peak fine dust levels and increased GP visits were attributable to the activities of TSN but called for more research. In response to the RIVM report, three municipalities and the Provincial Authorities have called upon TSN to communicate clearly what measures it intends to take to address the concerns, albeit they have acknowledged that TSN is generally operating within the requirements of its permits.

In January 2021, the ‘Concerned Mothers’ re-organised themselves into a charity; ‘FrisseWind.nu’ (‘Fresh Air’) and released a press statement with law firm Ficq & Partners Advocaten, which has threatened to file a criminal complaint against Tata Steel. It claims that Tata Steel and another party are responsible for deliberate air and soil pollution with risks for population and animal health. The threatened claim has attracted substantial media attention, both regionally and nationally. On 19 May 2021 the criminal complaint has been filed with the public prosecutor against the *de facto* managers of Tata Steel on behalf of about 800 claimants.

The Dutch Safety Board announced on 26th April 2021 that it will conduct an investigation into the effect of industrial emissions on public health. The project will be focused around TSN’s IJmuiden steelworks. The goal of the Board is to obtain learnings for society at large. It is not to (apportion) blame to individuals or organisations.

Roadmap+

In December 2020 TSN launched the Roadmap+, a large-scale investment programme worth ~€300M intended to improve local environmental performance between 2020 and 2030 by addressing the concerns of the surrounding community on areas such as dust, noise and odours. This represents a further development and deployment of the original Roadmap 2030, launched in 2019. The strengthened roadmap comprises a number of concrete measures that will address (i) nuisance created by odour and coarse dust, (ii) the impact on local air quality of fine dust, substances of Very High Concern (e.g. PAH, lead) and NOx and, (iii) eutrophication and (therefore) biodiversity impacts created by NOx deposition.

On 25 May 2021 TSN announced to accelerate these plans to significantly reduce dust and odour emissions from IJmuiden steelworks by:

- Reducing dust emission to the surrounding community by 65% by 2023; and
- Reducing odour pollution by 85% over the next two years;
- Building a new facility by 2025 to reduce nitrogen oxides, fine dust and heavy metals from the pellet plant.

The publication of Roadmap+ represents a major step forward to show Tata Steel’s commitment to the environment to respond to community concerns. The response to the Roadmap+ was positive in local and national media and by the provincial authority and national government. Though TSN's initiative was received positively, the Wijk aan Zee community remains sceptical and focusses on TSN achieving the goals set before confidence can be restored.

Roadmap+ contains new measures to reduce dust emissions. An important measure in reducing visible dust is the reduction of dust turbulence at storage facilities and when on conveyor belts in the raw materials area at the IJmuiden site. This is planned to be achieved by building dust screens and covering the bunkers of the Blast Furnaces as well as the transport systems for raw materials. In addition, covering the steel converter slag cooling process is expected to make an important contribution to dust reduction. By 2023, the company expects dust emissions in the immediate community around the site to be reduced by approximately 65 per cent compared to 2021 levels.

The odour sources with a major impact on the surrounding area are from processes known as the Coke and Gas Plant 2 (KGF2), the ladle fire-up installation at the Steel Plant and Pickling Line 22 at the Cold Mill. In addition to the planned acceleration of all odour-reduction measures, TSN will also take extra measures within Roadmap+, such as a plan to accelerate improvements to the KGF2, including adjustments to the mechanical seal and lowering the pressure of the 108 coke ovens. This project has now started. Another measure which has been added is the installation of a new scrubber at Pickling Line 22. With the extra measures, odour issues experienced by the surrounding community are expected to reduce by approximately 85 per cent in 2023.

A major project within the Roadmap+ package is the planned building of a ‘DeNOx’ installation at the Pellet factory in IJmuiden, which is expected to significantly contribute to the reduction of emissions. In addition to reducing nitrogen oxides (NOx), the new facility would also reduce emissions of particulate matter and heavy metals by 55 per cent.

By taking various measures against the emission of Substances of Very High Concern (SVHC), Tata Steel

Netherlands expects to achieve a 30 per cent reduction in the emission of Polycyclic aromatic hydrocarbons (PAH) by 2023.

Tata Steel Netherlands always strives to comply with permits and legal standards. The Roadmap+ program and the acceleration of the Roadmap+ plan cover actions which extend beyond the scope of current permit requirements. TSN deems this an essential acceleration, since it focuses on measures which have the largest possible positive impact on the local communities and the local environment.

TSN has already made significant improvements in reducing dust emissions in the first year of the (original) programme, including finalising a new facility for processing iron residues, as well as paving unsealed roads on site. New water suppression systems have been installed on raw material storage areas to reduce dust drift and testing is continuing into other ways of further reducing dust. A variety of operational measures have been taken to address noise, including reducing locomotives' emergency signals. In order to understand better the sources of malodour, additional electronic 'noses' (e-noses) have been deployed across the site and a pilot project has been commenced with the Province to exchange data from various e-noses.

TSN is continuously testing new operational designs, amongst others a trial to reduce dust emissions during the tipping and excavation of slag from the steel converter process.

Climate Action - Decarbonisation

Commitment – Expression of Principles Document

Climate change is one of the most pressing issues the world faces today. TSN is determined and committed to being part of the solution rather than part of the problem. It is already delivering on this commitment through the products that it makes and through its leadership in the field of steel industry decarbonisation. The Company has stated its commitment to produce steel in a carbon-neutral way by 2050. Furthermore, together with the Dutch Government, TSN has laid out its CO2 reduction ambitions through an Expression of Principles document in which it has further refined plans for decarbonisation with the potential to reduce CO2 emissions by five million tonnes a year by 2030 which equals to 40% reduction compared to 2018 of CO2 emissions of the IJmuiden steelworks. This would be an ambitious step towards helping the Netherlands in reaching the goals of the Dutch Climate Agreement. The Expression of Principles between TSN and the Dutch Government lays down a framework for mutually beneficial cooperation and dialogue on how decarbonisation plans could be realised.

Transparency & Disclosure

TSN is committed to open communication of its carbon emissions and climate action. In 2020 it again provided a comprehensive disclosure as part of a consolidated Tata Steel Group annual submission to CDP (formerly Carbon Disclosure Project). Tata Steel attained a rating of A-, putting it amongst the best performing of the steel companies reporting to CDP.

Joint effort with Government

TSN is supportive of the strong leadership position on climate action that the Dutch Government (and the governments in other jurisdictions in which it has operations) has taken. It is committed to working closely with policy-makers to deliver a profoundly important contribution to the achievement of national aspirations, as evidenced by its emission reduction commitments. Yet, it cannot do this alone. Tackling climate change is a major effort that concerns the whole of society and accelerating the pace of decarbonisation of the steel sector will require a set of policy interventions that rapidly strengthen the business case for public and private investment in low-CO2 steel.

It would be counter-productive if the cost of decarbonising TSN's steelmaking operations in the Netherlands were to give a competitive advantage to steelmakers in less carbon-constrained jurisdictions; policy measures are thus needed to enable TSN to remain competitive whilst pioneering the steel sector transition to net-zero. These measures should take the form of public procurement and product policies that incentivise the use by society of low-CO2 steel, measures that accelerate the deployment of clean energy infrastructure and, critically, interventions that ensure TSN can access low-cost finance and /or government financial support to facilitate high-risk, innovative and first-of-a-kind technologies. TSN is supportive in principle of the EU's proposed Carbon Border Adjustment Mechanism but care will be needed in its design if it is to have the intended effect of incentivising rapid decarbonisation amongst EU steelmakers.

Project Everest

TSN is currently exploring Carbon Capture and Storage (CCS) as a scenario for decarbonisation and is engaged in the first phase of the Everest project to capture CO2 from the blast furnaces in the relatively short term, and to transport it to former gas fields under the North Sea for storage. In the second phase, it will use blast furnace emissions for conversion into sustainable raw materials for the chemical industry and synthetic fuels.

HIsarna

The Company continues to work on a major long-term project to develop HIsarna, a new smelting reduction technology for which it co-owns the intellectual property rights, to produce steel without the need for coke making or agglomeration processes, thereby improving efficiency, reducing energy consumption and reducing CO2 emissions. The pilot plant is located at IJmuiden. The technology development plan for HIsarna is based upon a stepwise scale up from the current pilot plant in IJmuiden, towards a larger installation planned in Jamshedpur in India. The feasibility of a full-scale plant at IJmuiden with an iron output of up to 1.5 million tonnes per annum is being evaluated.

Project Athos

Project Athos is closely connected to Everest and HIsarna and examines the feasibility of carbon capture and storage (CCS) under the North Sea as well as carbon usage. The transport and storage system aspect of this project will build new infrastructure for the Amsterdam region, using existing infrastructure as much as possible. It will be owned and operated by a third party.

H2ermes

TSN, Nouryon and Port of Amsterdam are engaged in Project H2ermes, which envisages the construction of a 100 MW green hydrogen plant at the TSN site in IJmuiden. This hydrogen plant will be an important first step for the parties involved. The availability of green hydrogen will also have advantages for the entire Amsterdam metropolitan region as TSN is not the only party to benefit from this new resource.

Alternative solutions

In addition to the foregoing initiatives, TSN is also studying the proposal recently made by the FNV as a long term sustainable solution and a potential alternative for CCS. In its letter dated 14 may 2021 the FNV proposed to directly develop DRI-EAF without using CCS as an intermediate step. This and other alternatives will be carefully considered by TSN.

CO2 Emissions Performance in the short term

Even with TSN's decarbonisation activities moving forward at pace, it is nevertheless still important to ensure that its assets remain highly efficient in the short term. Currently, IJmuiden is one of the most carbon efficient integrated steelworks in the world, with a CO2 emissions intensity of 1.88 tonnes of CO2/tonnes crude steel in FY20 (taking account of Scopes 1, 2 & 3 emissions). With respect to low CO2 emission per tonnes crude steel the IJmuiden site is ranked number 3 in the 2020 WSA benchmark, out of 34 steel companies.

Emissions Trading

The allocation of CO2-credits to the operations of TSN under the EU Emissions Trading System (EU ETS) continued to be lower than the emitted volume in 2020, the final year of Phase 3 of the system, with the shortfall between free allowances and actual emissions exceeding 1.6 million tonnes of CO2, despite IJmuiden being amongst the most carbon efficient integrated steel plants in the world. This shortfall can be attributed to the use of unachievable benchmarks for the allocation of allowances to even the most efficient steel producers. Eurofer, the Confederation of European Iron and Steel Producers, estimates that steel companies receive on average approximately 20% fewer free allowances than their actual emissions.

The price of EUAs rose sharply through 2020 and continued to strengthen in 2021. From a price below €20 at the start of April 2020, prices had risen to over €40 by 1st April 2021 and €50 in May 2021. The price growth was attributable to a number of factors, from the growing number of investors seeking exposure to the EU ETS, to upcoming measures to tighten the system to align it with the EU's increased 2030 emissions reduction target, to the transition from Phase 3 to Phase 4 of the EU ETS.

Increasing shortages and rising prices of EUAs mean that steelmakers need to deal with growing costs of carbon while also investing in a decarbonised future. The Group announced in April 2021 that it would be introducing a carbon surcharge mechanism of €12 per tonne of steel to pass on some of its costs to the market. By explicit carbon pricing, TSN is seeking to drive awareness and action in the value chain towards innovation and investments in a decarbonised future.

Energy Efficiency

Whilst TSN already operates its steelmaking assets close to their theoretical optimum levels, it remains committed to making marginal gains wherever the opportunity arises to do so and continues to invest substantially in evaluating and optimising its processes. It has continued to enhance MONICA, the state-of-the-art monitoring and benchmarking tool for energy and CO2 emissions developed in-house.

TSN has a long-term energy efficiency agreement (MEE) with the Dutch Government and is engaged in continuous evaluation of opportunities. Under this agreement, an Energy Efficiency Plan (EEP) has been developed for the IJmuiden steelworks. Under the plan, TSN increased its coke oven gas storage capacity in 2020 to further optimise utilisation of this valuable, calorific process gas and, at the same time, reduce natural gas supply to the site. Other key developments during 2020 included the commissioning of a new, efficient blower at the blast furnaces and the tapping in of cooling water from the hot rolling mill into a local waste heat distribution system. During 2021, TSN plans to install a highly efficient reheating furnace at the hot rolling mill as well as energy efficient electrical drives. A variety of waste heat recovery schemes and burner upgrades are to be implemented in the following years, including a new waste heat recovery boiler at the sinter plant.

Netherlands Carbon Tax

As part of the national CO2-reduction plan of the Netherlands, a number of policy measures have been introduced in addition to EU ETS for both industrial and electricity generation sectors including a minimum carbon price for power generation and a carbon tax for industry, which came into effect on 1st January 2021. The carbon tax has the effect of supplementing the price of EU emissions allowances (EUA) in the EU ETS if they fall below a pre-determined and increasing annual threshold linearly from €30/tCO2 in 2021 to €125/tCO2 in 2030. A number of dispensation rights apply to ensure companies only pay the tax on a proportion of emissions above a defined threshold linked to ambitions of the Dutch government to achieve a 49% reduction in CO2 by 2030 (compared to 1990) and to the EU-ETS benchmarks. In light of the strength of the EUA price since 1st January 2021, the carbon tax has to date not yet kicked-in as far as TSN's activities are concerned.

Product innovation

Decarbonisation of the Company's operations is only a part of the positive contribution that TSN is making, as its products are also part of the solution to climate change.

Steel is a vital part of modern society and is essential for sustainable development. It is needed to make vehicles lighter and more efficient whilst helping to shape future forms of mobility. It will be a fundamental building block of the carbon neutral cities of the future. Its use in innovative packaging solutions underpins resilience within the food supply sector. Steel is also at the heart of renewable electricity generation and transmission and will play a crucial role in the upscaling of hydrogen production and conveyance.

As a strong, durable, flexible and infinitely recyclable material, steel will be at the heart of the future circular economy, in which resources are used with great efficiency, leading to the elimination of waste.

CO2 emissions in steel production can be offset by reductions in direct and indirect emissions through the life-cycle of steel products, achieved through effective product development and design, and through recycling at end-of-life. TSN has developed a tool to assess the sustainability of all new products against the products they replace, in a semi-quantitative manner. The Sustainability Assessment Profile is a unique framework supporting the company's mission to become sustainable in every sense, creates value propositions related to sustainability and supports customer engagement. The framework considers environmental, social and economic aspects over the complete product life cycle in a consistent manner in an approach that puts TSN ahead of other international steel companies.

The Sustainability Assessment Profile achieved recognition in Tata Group's flagship innovation platform, winning the 2020 Innovista award in the Implemented Innovation category.

From a results perspective, during FY21, TSN launched 11 new products across sectors, of which eight were assessed as Eco and two as Eco-Premium products, offering significant sustainability benefits over the products they replaced. Notable developments include the TCCT®

coating for Aerosol Bottoms from the Packaging sector which offers customers a sustainable, food-safe and future-proof solution, HR550LA+Z and 34MnB5 from Automotive and Engineering sectors respectively which offer significant weight saving opportunities.

Environmental Policy

TSN is committed to minimising the environmental impact of its operations and its products through the adoption of sustainable practices and continuous improvement in environmental performance. To implement its environmental ambition, TSN continuously strives to improve the systems that are in place to manage and minimise the effects of the Company's operations. For example, 100% of manufacturing operations within TSN are independently certified as meeting the international environmental management system standard, ISO 14001:2015. Furthermore, 100% of TSN's products manufactured in the Netherlands are independently certified as meeting the requirements of the sustainable sourcing standard, BES6001.

Implementation of the Dutch Hazardous Substances Legislation (Zeer Zorgwekkende Stoffen, ZZS)

The RIVM has identified a list of 1,600 chemical substances (including metals, polycyclic aromatic hydrocarbons (PAHs), dioxins, fine dust, etc.). Companies are required, under ZZS, to; (i) identify whether it emits them, (ii) (in each case that it does) identify from which point (stack) these are emitted (or determine whether these are diffuse emissions), (iii) calculate the concentrations in the air on the outbound perimeter of the site and at certain specific locations in the local community and, (iv) determine a 5-year-plan to phase-out, or if not possible to do so, minimise the emissions. TSN submitted its list of substances and concentrations along with its phase-out / minimisation plan at the end of December 2020 following the completion of a comprehensive measurement and inventory programme during 2020.

Recognition

The 2020 worldsteel Sustainability Champions were announced at the worldsteel Special General Meeting (SGM) of the Board of Members on 13th April 2021. TSE was recognised as a worldsteel Sustainability Champion for its performance and efforts in 2020, having met all the criteria for recognition, namely; being a signatory of the worldsteel Sustainable Development Charter, participating in the worldsteel Life Cycle Inventory data and Sustainability Indicators programme, publishing a sustainability-related report and having been shortlisted in one of five worldsteel Steelie Awards (Innovation of the year, Excellence in sustainability, Excellence in Life Cycle Assessment, Excellence in education and training, and Excellence in Communications programmes). TSE is one of only nine companies to be recognised as Sustainability Champions for 2020 and is one of only three companies to have been named a Sustainability Champion in each of the four years that the scheme has been operated.

Principal risks and risk management

Within the wider TSE group, active risk identification and mitigation management is an integral part of all business management processes.

Building on the risk management procedures and reporting framework that are applied throughout TSE, TSN has a robust process to identify and monitor the significant risks and associated mitigating measures for its operations and activities.

Risk registers that are prepared by the individual entities of TSN are consolidated in an overall TSN risk register, highlighting potential impact of the risks as well as probability of occurrence. The TSN risk register is updated every six months.

After every update a selection of the "Top 10" risks and mitigation measures is reviewed by the BoM together with the Supervisory Board.

Critical risks can be summarised as follows:

Risks	Mitigating factors
Health, safety, environmental and other compliance matters	
The health, safety and wellbeing of its employees is an overarching priority for TSN. TSN's businesses are subject to numerous laws, regulations and contractual commitments relating to health, safety, the environment and regulatory compliance in the countries in which it operates. The risk of substantial costs, liabilities and damage to reputation related to these laws and regulations are an inherent part of the TSN's business. Improving environmental performance and its linkage to "license to operate" is a key focus of TSN. TSN's "license to operate" depends on the balance that it achieves between the value of its products and services to society, the jobs it creates, the contributions it makes to communities and local economies, and its environmental footprint. Environmental issues, such as dust emissions in the vicinity of TSN's manufacturing sites, are key areas of concern for local communities which may negatively harm TSN's "licence to operate".	Available capital expenditure funding is therefore prioritised to this area. TSN has policies, systems and procedures in place aimed at ensuring compliance and there is a strong commitment from the TSN Board of Management and Supervisory Board to continuously improve health and safety performance, enforce compliance and to minimise the impact of the operations on the environment. TSN deploys a positive culture of managing safety, health and environmental ('SHE') risks. This includes the escalation of these risks to a TSL SHE Committee. A key focus are for TSN's operations and procurement is to minimise environmental impacts by selecting raw materials on its environmental credentials as well as on quality and price. TSN continues to engage with EU legislators to secure a level playing field, for example in areas such as the REACH (Registration, Evaluation, Authorisation & restriction of Chemicals) scheme. The disparities in legislation across steel producers in different countries reinforce the continued need to build brand reputation and customer loyalty. TSN is intensifying its contact with local communities close to its manufacturing operations to listen to their main concerns regarding TSN's activities and to explain the measures like Roadmap+ taken to reduce emissions and avoid environmental nuisance.

Risks	Mitigating factors
Climate change	
Climate-related risks have in recent years become central to TSN's risk management process. This includes climate-related physical risks such as those linked to rising sea levels and extreme weather events (e.g. storms, flooding, droughts, severe winds), and transition risks which include technological, policy and market changes to adapt to a lower-carbon economy. For the steel industry, transition risks include increased unit costs within Emissions Trading Systems and a reduction in the free allocation of CO2 allowances under those schemes. There is an expectation that in the future the allocation of CO2 allowances is likely to be substantially lower than projected emissions which is likely to expose TSN to higher operating costs. In addition, steel producers in the Netherlands are subject to a Netherlands specific carbon tax which, under certain conditions, may come on top of any EU Emissions Trading Systems costs. Carbon taxes continue to absorb additional resources when compared to competitors not subject to the same legislation. One of the major challenges facing the steel sector is the ambition to move towards low carbon steelmaking with key stakeholders putting pressure on the industry to make a step change in CO2 emissions. TSN is working in partnership with the government on the shared objective of creating an achievable, long-term plan to support the steel sector's transition to a competitive, sustainable and low carbon future. Due to the significant amount of capital that would be required in order to invest in greener steelmaking, a risk remains that without sufficient government support in the countries in which TSN operates, TSN may not be able to meet long term sustainability objectives, leading to higher carbon taxes and potentially a reduction in orders from environmentally conscious customers.	Physical risks for which mitigations are in place include flood-risk management on TSN sites, resilience planning in respect of raw material suppliers declaring Force Majeure because of mine inundation or shipping delays. In the early part of 2021/22, TSN has started to pass on costs of carbon taxes to customers in the form of an additional surcharge which will be adjusted when carbon costs change. TSN believes in transparency in pricing of its steel products and believes that end customers and society as a whole recognise that decarbonisation is likely to involve higher costs. Future regulatory changes may include a EU Carbon Border Adjustment Mechanism which would help protect European steel producers from imports from countries that are not subject to the same level of carbon taxes. TSN is supportive in principle of the EU's proposed Carbon Border Adjustment Mechanism, but care will be needed in its design if it is to have the intended effect of incentivising rapid decarbonisation amongst EU steelmakers. Together with the Dutch Government, TSN has laid out its CO2 reduction ambitions through an Expression of Principles document. In this, TSN has further refined its plans for decarbonisation with the potential to reduce CO2 emissions by five million tonnes a year by 2030. These plans will need Dutch Government financial and regulatory support.
Our workforce	
Maintaining a critical mass of engineers and other specialist functions remains a challenge within TSN due to the demand for these skills in the locations in which the business operates.	Strategic collaborations continue with Technical Universities and other relevant schools and talent programmes for graduates, functional trainees and apprentices to improve quality and retention.
During the second half of 2020/21, TSE has been working towards a strategic separation of the Tata Steel UK and Tata Steel Netherlands businesses, incorporating proposals to transform the business. These discussions will continue in the coming period to agree a new TSN organisational structure. There is a risk that works councils and trade union representatives resist any changes to the organisation proposed by the Group.	Strong succession planning is implemented to ensure continuity in the management of the complex challenges facing TSN. TSN remains committed to discussing any changes in the organisation with its works councils and trade union representatives in order to ensure the workforce is part of the discussions regarding organisation.

Risks	Mitigating factors
Trading in the global steel market	
TSN's financial performance is influenced by the global steel market and the economic climate in Europe. TSN is one of a number of European steel producers which are being squeezed between rising import pressures and declining demand, with the situation being particularly acute for producers of hot rolled flat products. The surge in imports in recent years forced TSN and other EU producers to pursue antidumping (AD) actions, investigation of unfair imports and imposition of trade remedy measures. Despite measures being in place to support EU producers, vulnerabilities remain as safeguards to manage volumes do not address prices. Furthermore, the Tariff Rate Quotas (TRQs) set a cap on imports, but at a high level which varies by product, and are based around historical EU imports, when demand was higher than today. TSN is monitoring the current status and utilisation of safeguard quotas and their impact on stabilising traditional import flows and prevention of market-disrupting import concentration. TSN's manufacturing facilities are largely based in Europe, which is a relatively high cost area and where demand growth for steel products is lower than in developing parts of the world. Increasing costs from climate change requirements, raw material costs and competing materials challenge the long-term competitiveness of TSN's strip products.	TSN's commercial strategies aim to identify opportunities to focus on less import sensitive sectors/markets, product differentiation and a customer focus that will enable longer term contracts. Whilst the start of 2021/22 has been characterised by a strong European steel market with demand outpacing supply and no significant increase in trade imports, how long the current situation lasts remains to be seen. In case of a significant downturn in demand for steel products once the market has stabilised, the type of short term measures that TSN applied at the beginning of 2020/21 when the COVID-19 pandemic started could be reintroduced. Such measures include deferral of capital expenditure, short term reductions in production levels, and a strong focus on control of costs The most significant of these improvement initiatives is the Transformation programme, which aims to deliver operational commercial and supply chain improvements and reach sustainable levels of EBITDA. As part of the transformation programme, the Group will continue to target and grow its offering of a high value, differentiated product mix to the market. In order to maintain its ability to successfully compete in the long term TSN is undertaking a number of initiatives, including cost reduction measures and business specific improvement plans.
Performance and operations	
Whilst TSN seeks to increase differentiated/premium business which is less dependent on steel market price movements, it still retains focus on improving its operations, consistency, and taking measures to protect against unplanned interruptions and property damage.	Best practices in asset management, enhancing technical knowledge and skills, improving process safety, targeted capital expenditure and focused risk management remain as priorities for the business, e.g. the Maintenance Action Programme in IJmuiden.

Risks	Mitigating factors
Raw materials and energy	
TSN has no access to captive iron ore and coal supplies, therefore access to and pricing of raw materials supplies depend, to a large extent, on worldwide supply and demand relationships, notably iron ore, metallurgical coal and scrap. Exposure to raw material shortages has not been a high risk historically, though is going to need to be managed effectively for a period of time following the impact of the COVID-19 pandemic. Supply disruption of raw materials beyond existing buffer stocks could arise, either from quarantine of the vessels if they come from a high risk countries, or disruptions and restrictions in country of origin of raw materials.	Within TSN's transformation programme opportunities are being sought, with suppliers, to get more value out of contracts by strengthening partnerships, negotiating better payment terms and leveraging the buying power of the wider TSL Group to lower costs of consumables. The workstream also investigates opportunities in the supply chain, for example by reducing inbound freight costs. Exposure to energy shortages and price increases are mitigated by initiatives to improve TSN's energy efficiency, which continues to make progress.
Exchange rates	
TSN derives most of its revenue in the EU. Major raw material purchases are denominated mainly in US dollars. As a result, TSN is impacted by the relationship between the Euro and the US dollar. In general, a strengthening of the Euro reduces the Euro value of export revenues from the EU, it improves the relative competitiveness of steel producers in countries with weaker currencies enabling them to discount prices in the EU market, and it exposes customers to similar pressures leading to a reduction in demand for steel in the EU. In contrast, a strengthening of the Euro reduces the Euro cost of the raw materials, which are purchased predominantly in US dollars.	TSN operates a hedging policy to minimise the volatility of rapid and significant movements in these exchange rates. TSN is also actively diversifying its geographic customer base which helps mitigate dependence on particular currency zones.
Digital resilience	
The threat of cyber-attacks has continued as a genuine business risk due to large scale criminal activity targeting major businesses across all industries.	The cyber environment in which TSN operates requires continuous scanning of threats and constant review of controls to prevent an increasing risk exposure, utilising new technology and maintaining existing hardware at all levels. TSN is committed to having the right cyber security standards and practices to ensure the company is equipped to defend itself from cyber incidents. Significant investment has been committed to combat the threats that have emerged from cyber incidents, which include continuing development of a central Security Operations Centre, and process control security projects to manage local security incidents and event detection. Specific focus and investment has been placed on awareness and education, protection from viruses, malicious software and external hacking, managing core network components, and contingency planning and resilience for digital business critical components.

B. Report of the Board of Management

Composition of the Board of Management

Until 1 June 2020, the Board of Management was composed of Mr. Th.J. Henrar, Mr. J.E. van Dort and Mr. J. van den Berg. On 1 June 2020, Mr Th.J. Henrar released his position as member of the Board. A successor of Mr Henrar has not yet been appointed. Mr. Van den Berg replaced Mr. Henrar as (acting) Chairman. The Board will strive for equal representation with future appointments.

Prospects for 2021/22

In 2021 global economic growth is expected to be high as COVID-19 restrictions are eased. The World Steel Association predicts that growth of global steel demand will recover to 5.8%. EU steel demand is expected to recover by 10.2%, thereby staying slightly below the pre-COVID-19 level. In the first months of the financial year 2021/22, the upswing in steel demand and steel prices is confirming these expectations.

Post balance sheet events

There are no events to report.

Board of Management

J. van den Berg, Chairman

J.E. van Dort

IJmuiden, 28 June 2021

Consolidated income statement

For the financial year ended 31 March

	Note	2021 €m	2020 €m
Revenue	1	**4,347**	4,709
Operating costs	2	**(4,562)**	(4,885)
Operating loss		**(215)**	(176)
Finance costs	5	**(10)**	(9)
Finance income	5	**6**	7
Share of post-tax results of joint ventures and associates	10(iii)	**6**	3
Loss before taxation		**(213)**	(175)
Taxation	6	**74**	50
Loss after taxation		**(139)**	(125)
Attributable to:			
Owners of the Company		**(140)**	(125)
Non-controlling interests		**1**	-

All references to 2021 in the Financial Statements, the Presentation of accounts and accounting policies and the related Notes 1 to 35 refer to the financial year ended 31 March 2021 or as at 31 March 2021 as appropriate (2020: the financial year ended 31 March 2020 or as at 31 March 2020).

Notes and related statements forming an integral part of these consolidated accounts appear on pages 28 to 60.

Consolidated statement of comprehensive income

For the financial year ended 31 March

	Note	2021 €m	2020 €m
Loss after taxation		**(139)**	(125)
Items that will not be reclassified subsequently to profit or loss:			
Actuarial gains/(losses) on defined benefit pension and other post-retirement plans	30	**3**	(10)
Items that may be reclassified subsequently to profit or loss:			
Gains/(losses) arising on cash flow hedges	20 (iv)	**31**	(24)
Exchange rate movements on currency net investments		**(2)**	1
Income tax relating to items that may be reclassified	20 (iv)	**(7)**	6
Other comprehensive income/(loss) for the year net of tax		**25**	(27)
Total comprehensive loss for the year		**(114)**	(152)
Attributable to:			
Owners of the Company		**(115)**	(152)
Non-controlling interests		**1**	-

Notes and related statements forming an integral part of these consolidated accounts appear on pages 28 to 60.

Consolidated balance sheet

As at 31 March	Note	2021 €m	2020 €m
Non-current assets			
Goodwill	7	**8**	8
Other intangible assets	8	**105**	86
Property, plant and equipment	9	**2,065**	2,038
Equity accounted investments	10	**39**	42
Other investments	11	**6**	6
Other non-current assets	12	**3**	3
Deferred tax assets	22	**78**	64
Non-current tax assets	14	**-**	1
		2,304	2,248
Current assets			
Inventories	13	**943**	986
Trade and other receivables	15	**782**	964
Current tax assets	14	**89**	39
Cash and short-term deposits	16	**82**	49
		1,896	2,038
TOTAL ASSETS		**4,200**	4,286
Current liabilities			
Borrowings	18	**(24)**	(33)
Trade and other payables	17	**(1,092)**	(1,025)
Current tax liabilities	14	**(6)**	(142)
Retirement benefit obligations	30	**(1)**	(1)
Provisions for liabilities and charges	21	**(134)**	(73)
		(1,257)	(1,274)
Non-current liabilities			
Borrowings	18	**(85)**	(92)
Retirement benefit obligations	30	**(120)**	(132)
Provisions for liabilities and charges	21	**(119)**	(120)
Other non-current liabilities	19	**(68)**	(2)
Deferred income	23	**(3)**	(4)
		(395)	(350)
TOTAL LIABILITIES		**(1,652)**	(1,624)
NET ASSETS		**2,548**	2,662
Equity			
Called-up share capital	24	**388**	388
Share premium account		**17**	17
Other components of equity		**2,142**	2,257
Equity attributable to owners of the Company		**2,547**	2,662
Non-controlling interests		**1**	-
TOTAL EQUITY		**2,548**	2,662

Notes and related statements forming an integral part of these consolidated accounts appear on pages 28 to 60.

Consolidated statement of changes in equity

	Called-up share capital €m	Share premium account €m	Retained earnings €m	Hedging reserve €m	Translation reserves €m	Total €m	Non-controlling interests €m	Total equity €m
Balance as at 1 April 2019	**388**	**17**	**2,382**	**14**	**13**	**2,814**	**-**	**2,814**
Loss after taxation	-	-	(125)	-	-	**(125)**	-	**(125)**
Other comprehensive result for the year	-	-	(10)	(18)	1	**(27)**	-	**(27)**
Total comprehensive result for the year	-	-	(135)	(18)	1	**(152)**	-	**(152)**
Balance as at 31 March 2020	**388**	**17**	**2,247**	**(4)**	**14**	**2,662**	**-**	**2,662**
(Loss)/profit after taxation	-	-	(140)	-	-	**(140)**	**1**	**(139)**
Other comprehensive result for the year	-	-	3	24	(2)	**25**	-	**25**
Total comprehensive result for the year	-	-	(137)	24	(2)	**(115)**	**1**	**(114)**
Balance as at 31 March 2021	**388**	**17**	**2,110**	**20**	**12**	**2,547**	**1**	**2,548**

Notes and related statements forming an integral part of these consolidated accounts appear on pages 28 to 60.

Consolidated statement of cash flows

For the financial year ended 31 March

	Note	2021 €m	2020 €m
Operating activities			
Loss after taxation		**(139)**	(125)
Adjustments for:			
Tax	6	**(74)**	(50)
Profit on disposal of property, plant and equipment	2	**(7)**	-
Profit on disposal of group companies	31	**(1)**	-
Interest income	5	**(6)**	(7)
Interest expense	5	**10**	9
Share of results of joint ventures and associates	10(iii)	**(6)**	(3)
Depreciation and amortisation including impairments (net of grants released)	2	**236**	260
Movement in pension prepayments and provisions		**(6)**	(9)
Movement in insurance and other provisions		**73**	4
Movement in loose plant, tools and spares		**25**	16
Movement in inventories		**41**	9
Movement in receivables		**48**	263
Movement in payables		**183**	(33)
Rationalisation costs provided	21	**11**	20
Utilisation of rationalisation provisions	21	**(23)**	(5)
Cash generated from operations		**365**	349
Interest paid		**(5)**	(4)
Interest element of lease rental payments		**(5)**	(5)
Taxation paid		**(2)**	-
Net cash flow generated from operating activities		**353**	340
Investing activities			
Purchase of property, plant and equipment	9	**(287)**	(300)
Sale of property, plant and equipment	9	**7**	4
Purchase of other intangible assets	8	**(34)**	(16)
Disposal of subsidiaries	31	**1**	-
Deferred proceeds from sale of joint venture	10	**3**	-
Dividends from joint ventures and associates	10	**6**	3
Interest received		**6**	7
Net cash flow used in investing activities		**(298)**	(302)
Financing activities			
New loans to Group companies	29	**(7)**	(12)
Proceeds from loans to Group companies	29	**11**	21
Repayment of loans from Group companies		**(3)**	(4)
Movements in other loans		**2**	3
Capital element of lease rental payment	29	**(20)**	(24)
Net cash flow generated from/(used in) financing activities		**(17)**	(16)
Increase in cash and cash equivalents		**38**	22
Cash and cash equivalents at beginning of period		**44**	22
Cash and cash equivalents at end of period		**82**	44
Cash and cash equivalents consist of:			
Cash and short-term deposits	16	**82**	49
Bank overdrafts	18	**-**	(5)
		82	44

Notes and related statements forming an integral part of these consolidated accounts appear on pages 28 to 60.

Presentation of consolidated accounts and accounting policies

I Introduction

Tata Steel Nederland BV ('TSN') is based in IJmuiden, in the municipality of Velsen, the Netherlands, and forms part of the Tata Steel Group. The Chamber of Commerce number for the company is 34005278. The ultimate parent company is Tata Steel Limited ('TSL'), which is a company incorporated in India with shares listed on the BSE Ltd (formerly the Bombay Stock Exchange Ltd, Mumbai) and the National Stock Exchange of India, and with global depository receipts listed on the London and the Luxembourg Stock Exchanges. The shares of TSN are held by Tata Steel Netherlands Holdings BV ('TSNH').

TSN and its subsidiaries ('the Group') form an international steel group that manufactures, processes and distributes steel products.

The 2021 Annual Accounts of TSN were authorised for issue by the Board of Management on 28 June 2021.

II Basis of preparation

TSN is a private limited company incorporated in the Netherlands. The consolidated financial statements of the Group for the year ended 31 March 2021 comprise the Company and its subsidiaries and the Group's interest in its joint venture and associated undertakings.

The consolidated accounts have been prepared in accordance with International Financial Reporting Standards ('IFRS') as adopted by the European Union ('EU') and interpretations issued by the International Financial Reporting Interpretations Committee ('IFRIC'). IFRS as adopted by the EU differs in certain respects from IFRS as issued by the International Accounting Standards Board ('IASB'). However, the consolidated financial statements for the periods presented would not be materially different if the Company had applied IFRS as issued by the IASB. References to IFRS hereafter should be construed as references to IFRS as adopted by the EU. The functional and presentational currency of the Company is the Euro.

The financial statements also contain the separate accounts for the parent company, TSN. The accounts of the parent company are prepared in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The financial statements for the parent company and Group have been prepared under the historical cost convention, unless otherwise stated.

The Group has prepared consolidated financial statements under the IFRS accounting policies set out below and these policies have been applied consistently to all the periods.

Going concern

The Board of Management has assessed the ability of the Group to continue as a going concern. In March 2020, TSN first started to experience the negative effects of the global COVID-19 pandemic on the demand for its steel products. TSN responded to the financial consequences of the reduced steel demand caused by the pandemic by utilising available government support measures, taking short term actions to conserve cash, and reducing or deferring spend including on capital expenditure projects. In the second half of the 2020/21 financial year, demand for TSN's steel products rebounded strongly with significant increases in steel selling prices towards the end of the year.

The Board of Management have assessed the future funding requirements of the Group In the near term, based on financial forecasts covering 12 months from the date of this report and have compared these funding requirements to the level of borrowing facilities which are available. Considering current steel prices, spread levels and volumes, the Group is expecting strong positive operational cash flows for this period, also after factoring in the planned spend for the strategic investments in the STAR and Roadmap+ programs.
The Group continues to have sufficient access to borrowing facilities, both internal and external, such as the EUR 150 m revolving credit facility which was undrawn at the beginning of financial year 2021/2022. We refer to note 18 for further details on the available facilities.
Furthermore, TSN is currently engaged in constructive discussions regarding long term financial support from the Netherlands government to assist the Group in meeting the long term financial challenges of decarbonising TSN's steel production facilities.

Having undertaken this work, the Board of Management are of the opinion that the Group has access to adequate resources to fund its operations for the foreseeable future, and so determine that it is appropriate for the financial statements to be prepared on a going concern basis.

III New standards and interpretations applied

The following new International Accounting Standards ('IAS') and new IFRSs have been adopted in the current year:

		Effective Date*
IAS 1 & IAS 8 (Amendments)	New materiality definition	1 Jan 2020
IAS 1 (Amendments)	Updated references to Conceptual Framework	1 Jan 2020
IFRS 3 (Amendments)	Updated definition of a business	1 Jan 2020
IFRS 16 (Amendments)	Covid-19-Related Rent Concessions	1 Jun 2020**
IFRS 7, IFRS 9 & IAS 39 (Amendments)	Interest rate benchmark reform	1 Jan 2020

** periods commencing on or after*
***The amendment is effective for annual reporting periods beginning on or after 1 June 2020. Earlier application is permitted.*

The Group has early adopted the IFRS 16 Amendment for Covid-19-Related Rent Concessions from 1 June 2020. The Amendments to the above Standards, including the early adoption of the IFRS 16 Amendment, did not have a material impact on the TSN financial statements.

IV New standards and interpretations not applied

The International Accounting Standards Board ('IASB') has issued the following Standards, which are relevant to the Group's reporting but have either not been applied as they have not been adopted for use in the EU in the year ended 31 March 2021, or have an effective date after the date of these financial statements:

		Effective Date*
IFRS 17	Insurance Contracts	1 Jan 2023
IFRS 16 (Amendments)	Covid-19-Related Rent Concessions beyond 30 June 2021	1 April 2021
IAS 12 (Amendments)	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 Jan 2023
IAS 1 (Amendments)	Disclosure of Accounting Policies	1 Jan 2023
IAS 1 (Amendments)	Classification of Liabilities as Current or Non-current	1 Jan 2023
IAS 8 (Amendments)	Definition of Accounting Estimates	1 Jan 2023
IAS 37 (Amendments)	Onerous Contracts—Cost of Fulfilling a Contract	1 Jan 2022
IAS 16 (Amendments)	Proceeds before Intended Use	1 Jan 2022
IFRS 3 (Amendments)	Reference to the Conceptual Framework	1 Jan 2022
IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (Amendments)	Interest Rate Benchmark Reform—Phase 2	1 Jan 2021
IFRS 1, IFRS 9 Illustrative Example 13 of IFRS 16 and IAS 41 (Amendments)	Annual Improvements to IFRS Standards 2018–2020	1 Jan 2022**

** periods commencing on or after*
*** except for the amendment to IFRS 16 for which no effective date is stated as it regards only an illustrative example*

Management have performed a review of the expected impact from other standards and interpretations not applied as shown above. Management do not expect a material impact as a result these new standards and interpretations not yet applied.

V Use of estimates and critical accounting judgements

In the application of the Group's accounting policies, which are described in section VI, the BoM are required to make judgements (other than those involving estimations) that have a significant impact on the amounts recognised and to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies

The BoM considers there are no critical judgements, apart from those involving estimations (which are presented separately below), that have been made in the process of applying the Group's accounting policies that have a significant effect on the amounts recognised in the financial statements.

Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting period end that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

1) Provisions
Estimates in calculating provisions for environmental remediation, legal claims and employee benefits are based on previous experience and third party advice and are reassessed on a regular basis. Judgement is required in assessing the likely costs and the timing of these costs. Further details on the Group's provisions can be found in note 21.

2) Recognition of deferred tax assets
The recognition of deferred tax assets is subject to estimations of the future available taxable profits that the directors consider to be more likely than not to occur based on the Group's annual plans and future forecasts. Further information can be found in note 22.

3) Post-retirement benefits
The Group's retirement benefit obligations are assessed by selecting key assumptions. The selection of inflation, salary growth, and mortality rates are key sources of estimation uncertainty which could lead to a material adjustment in the defined benefit obligations within the next financial year. The Group sets these judgements with close reference to market conditions and third party actuarial advice.

The Group's defined benefit obligations are discounted at a rate set by reference to market yields at the end of the reporting period on high quality corporate bonds. The most significant criteria considered for the selection of bonds include the issue size of the corporate bonds, quality of the bonds and the identification of outliers which are excluded.

4) Impairment of non-current assets
A significant part of the Group's capital is invested in property, plant and equipment. Determining whether these assets are impaired requires an estimation of value in use of the Cash Generating Unit ('CGU') to which the asset relates. Value in use calculations require an estimation of future cash flows expected to arise from the cash generating unit and a suitable discount rate in order to calculate present value. The present value is sensitive to changes in the discount rate used in the value in use models, the forecast profitability of the Group in the third year of the Group's Annual Plan, and the expected impact of decarbonisation (including carbon taxes) on the Group. Further details on the Group's impairment review, key assumptions, and sensitivity analyses are set out in note 9.

The detailed accounting policies for each of these areas, are outlined in section VI below.

VI Critical accounting policies

(a) Property, plant and equipment
Property, plant and equipment are recorded at original cost less accumulated depreciation and any recognised impairment loss, with the exception of land. Cost includes professional fees and, for assets constructed by the Group, any related works to the extent that these are directly attributable to the acquisition or construction of the asset. This includes borrowing costs capitalised in respect of qualifying assets in accordance with the Group's policy. Amounts incurred in connection with capital projects that are not directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended (which the Group refers to as 'commissioning costs' and which include expenses such as initial operating losses incurred while technical deficiencies on new plant are rectified and incremental operating costs that are incurred while the new plant is operating at less than full capacity) are written off to profit and loss as incurred. Assets in the course of construction are depreciated from the date on which they are ready for their intended use.

The gain or loss arising on disposal of an asset is determined as the difference between the sale proceeds and the carrying amount of the asset, and is recognised in profit and loss.

Included in property, plant and equipment are loose plant and tools which are stated at cost less amounts written off related to their expected useful lives and estimated scrap value and also spares, against which impairment provisions are made where necessary to cover slow moving and obsolete items.

Subsequent costs are included in the carrying value of an asset when it is probable that additional future economic benefits will flow to the Group and the cost of the item can be measured reliably. All other repairs and renewals are charged to profit and loss as incurred.

(b) Depreciation, amortisation and impairment of property, plant and equipment and other intangible assets (including goodwill)
Depreciation or amortisation is provided so as to write off, on a straight-line basis, the cost of property, plant and equipment and other intangible assets, including right-of-use assets, to their residual value. These charges are commenced from the dates the assets are available for their intended use and are spread over their estimated useful economic lives or, in the case of leased assets, over the lease period if shorter. The estimated useful lives of assets and residual values are reviewed regularly and, when necessary, revised. Accelerated depreciation or amortisation is provided where an asset is expected to become obsolete before the end of its normal useful life or if events or changes in circumstances indicate that an impairment loss needs to be recognised, as discussed below. No further charges are provided in respect of assets that are fully written down but are still in use.

The estimated useful lives for the main categories of property, plant and equipment and other intangible assets are:

		Life Years
Freehold and long leasehold buildings that house plant and other works buildings		25
Other freehold and long leasehold buildings		50
Plant and machinery:		
Iron and steelmaking	(maximum)	25
IT hardware and software	(maximum)	8
Office equipment and furniture		10
Motor vehicles		4
Other	(maximum)	15
Patents and trademarks		4
Product and process development costs		5

At each reporting period end, the Group reviews the carrying amounts of its property, plant and equipment and other intangible assets (including goodwill) to determine whether there is any indication that the carrying amount of those assets may not be recoverable through continuing use. If any such indication exists, the recoverable amount of the asset is reviewed in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the CGU to which the asset belongs. Other intangible assets with indefinite useful lives are tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate, based upon the Group's long term weighted average cost of capital ('WACC'), which also recognises the comparative WACCs of its European peers, with appropriate adjustments for the risks associated with the relevant units. If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or CGU) in prior years. A reversal of an impairment loss is recognised as income immediately, although impairments of goodwill are not subject to subsequent reversal.

(c) Taxation

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences. In contrast, deferred tax assets are only recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Liabilities are not recognised for taxable temporary differences arising on investments in subsidiaries, joint ventures and associates where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Both current and deferred tax items are calculated using the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. This means using tax rates that have been enacted or substantially enacted by the end of the reporting period. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Deferred tax assets and liabilities are offset to the extent that they relate to taxes levied by the same tax authority and they are in the same taxable entity, or a group of taxable entities where the tax losses of one entity are used to offset the taxable profits of another and there are legally enforceable rights to set off current tax assets and current tax liabilities within that jurisdiction.

(d) Retirement benefit costs

The group operates a number of defined benefit and a number of defined contribution pension plans for its employees. Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due.

For defined benefit retirement schemes the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at each reporting period end. The Group applies IAS 19 'Employee Benefits' to recognise all actuarial gains and losses directly within retained earnings, presenting those arising in any one reporting period as part of the relevant statement of comprehensive income. In applying IAS 19, in relation to retirement benefits costs, the current service cost and net interest cost have been treated as a net expense within employment costs.
Past service cost is recognised immediately to the extent that the benefits are already vested, and otherwise is amortised on a straight-line basis over the average period until the benefits become vested.

The retirement benefit liability recognised in the balance sheet represents the fair value of scheme assets less the present value of the defined benefit obligation as adjusted for unrecognised past service cost. Any asset resulting from this calculation is limited to unrecognised past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

(e) Provisions

Provisions for rationalisation and related measures, environmental remediation and legal claims are recognised when the Group has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. This involves a series of management judgements and estimates that are based on past experience of similar events and third party advice where applicable. Where appropriate and relevant those provisions are discounted to take into consideration the time value of money.

In particular, redundancy provisions are made where the plans are sufficiently detailed and well advanced, and where appropriate communication to those affected has been made at the end of the reporting period. These provisions also include charges for any termination costs arising from enhancement of retirement or other post-employment benefits for those employees affected by these plans.

Provisions are also created for long term employee benefits that depend on the length of service, such as long service and sabbatical awards, disability benefits and long term compensated absences such as sick leave. The amount recognised as a liability is the present value of benefit obligations at the end of the reporting period, and all movements in the provision (including actuarial gains and losses or past service costs) are recognised immediately within profit and loss.

TSN participates in the EU Emissions Trading Scheme, initially measuring any rights received or purchased at cost, and recognises a liability in relation to carbon dioxide allowances if there is any anticipated shortfall in the level of allowances received or purchased when compared with actual emissions in a given period. Any surplus is only recognised once it is realised in the form of an external sale.

VII Other accounting policies

(a) Basis of consolidation

The consolidated income statement, statement of comprehensive income, balance sheet, statement of changes in equity and statement of cash flows include the Company and its subsidiaries. They also include the Group's share of the profits, net assets and retained post acquisition reserves of joint ventures and associates that are consolidated using the equity method of consolidation.

The profits or losses of subsidiaries, joint ventures and associates acquired or sold during the period are included from the date of acquisition or up to the date of their disposal. All intra-group transactions, balances, income and expenses are eliminated on consolidation, including unrealised profits on such transactions.

(b) Business combinations

On the acquisition of a subsidiary, joint venture or associate, fair values are attributed to the net assets acquired. Any excess of the fair value of consideration given (including the fair value of any contingent consideration) over the fair values of the Group's share of the identifiable net assets acquired is treated as goodwill. The costs of acquisition are charged to profit and loss in the period in which they are incurred. If the fair value of the net assets acquired exceeds the fair value of consideration then these fair values are reassessed before taking the remainder as a credit to profit and loss in the period of acquisition.

Goodwill is recognised as an asset. Although it is not amortised, it is reviewed for impairment annually and whenever there is a possible indicator. Any impairment is recognised immediately in profit and loss and cannot subsequently be reversed. On disposal of a subsidiary, joint venture or associate any residual amount of goodwill is included in the determination of the profit or loss on disposal.

Where an acquisition is achieved in stages, upon obtaining control the previously held equity interest is reassessed at fair value and any resulting gain or loss is recognised in profit and loss.

The Group has applied IFRS 3 (Revised) 'Business Combinations' to business combinations after 1 April 2010. The accounting for business combinations transacted prior to this date has not been restated.

(c) Revenue

The Group's revenue is primarily derived from the single performance obligation to transfer steel products under arrangements in which the transfer of control of the products and the fulfilment of the Group's performance obligation occur at the same time. Revenue from the sale of goods is recognised when the Group has transferred control of the goods to the buyer and the buyer obtains the benefits from the goods, the potential cash flows and the amount of revenue (the transaction price) can be measured reliably, and it is probable that the Group will collect the consideration to which it is entitled to in exchange for the goods.

(i) Sale of goods

The group manufactures and sells a range of steel products. Sales are recognised when control of the products has transferred, being when the products are delivered to the customer. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred, and either the customer has accepted the products in accordance with the sales contract, or the group has objective evidence that all criteria for acceptance have been satisfied.

The steel is often sold with volume discounts based on aggregate sales over a 12 month period. Revenue from these sales is recognised based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate and provide for the discounts, using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur.

A contract liability is recognised for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales are made with a credit term of 60 days, which is consistent with market practice. Any obligation to provide a refund is recognised as a provision.

A receivable is recognised when the goods are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.

The group does not have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the group does not adjust any of the transaction prices for the time value of money.

(ii) Rendering of services

In addition to the sale of steel, the group provides the following post-sale services which have been identified as distinct performance obligation under IFRS 15:

1) Bill and Hold Arrangements

A bill and hold arrangement arises when a customer is invoiced for steel that are ready for delivery but are not shipped to the customer until a later date. These sales are recognised when the following criteria are met:

a. the reason for the bill-and-hold arrangement must be substantive (for example, the customer has requested the arrangement);
b. the product must be identified separately as belonging to the customer;
c. the product currently must be ready for physical transfer to the customer; and
d. the entity cannot have the ability to use the product or to direct it to another customer.

Any significant custodial element included in the sales price should be separately recognised over the term of the holding period. On assessment of this requirement, TSN has noted that the effect was immaterial and no adjustment is required.

2) Shipping and Handling Activity

Some shipping arrangements result in TSN incurring the costs to deliver goods to the named port of destination (which include insurance and freight) which are considered to be distinct performance obligations under IFRS 15 as control of the goods passes at the port of shipment but the seller still has a separate obligation to arrange and pay for the freight and/or insurance to the port of destination.

The majority of steel supply contracts will include charges in relation to shipping and handling. There may be a separate fee for shipping and handling costs or shipping and handling might be implicit in the price per ton of the product.

The estimated impact of the deferral of shipping revenue is immaterial to warrant the business to make a regular adjustment in respect of this.

(d) Government grants

Grants related to expenditure on property, plant and equipment are credited to profit and loss over the useful lives of qualifying assets. Grants related to revenue are credited to the income statement in line with the timing of when costs associated with the grants are incurred. Total grants received less the amounts credited to profit and loss at the end of the reporting period are included in the balance sheet as deferred income.

(e) Insurance

Most of TSN's insurances are arranged by Tata Steel Europe ('TSE'). Insurance premiums in respect of those insurances placed by TSE on behalf of TSN and those arranged directly by TSN with insurers are charged to the income statement in the period to which they relate.

(f) Financing items

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

Interest expense, excluding that related to financing the construction of qualifying property, plant and equipment is expensed as incurred. Dividend income is recognised when the right to receive payment is established.

(g) Foreign currencies

Monetary assets and liabilities in foreign currencies are translated into euros at the quoted rates of exchange ruling at the end of each reporting period. Income statement items and cash flows are translated into euros at the average rates for the financial period. In order to hedge its exposure to certain foreign exchange transaction risks, the Group enters into forward contracts and options (see (h) below for details of the Group's accounting policies in respect of such derivative financial instruments). In preparing the financial statements of the individual companies, transactions in currencies other than the entity's functional currency are recognised at the rates of exchange prevailing on the dates of the transactions.

Exchange differences on the retranslation of the opening net investment in foreign enterprises and the retranslation of profit and loss items from average to closing rate are recorded as movements on reserves. Such cumulative exchange differences are transferred to profit and loss on subsequent disposals of the foreign enterprise and for other substantial reductions in capital in these enterprises during the period.

Under IAS 21, cumulative translation differences on the consolidation of subsidiaries are only being accumulated for each individual subsidiary from the date of acquisition.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

(h) Financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. The detailed accounting treatment for such items can differ, as described in the following sections:

(i) Financial assets

All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value, depending on the classification of the financial assets. Where the Group transfers substantially all the risks and rewards of ownership of a financial asset, the financial asset is derecognised and any rights and obligations created or retained in the transfer are recognised separately as assets or liabilities. This includes the Group's €200m non-recourse debtor securitisation facility.

Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortised cost:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income ('FVTOCI'):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

By default, all other financial assets are measured subsequently at fair value through profit or loss ('FVTPL').

(ii) Impairment of financial assets

The Group recognises a loss allowance for Expected Credit Losses ('ECL') on investments in debt instruments that are measured at amortised cost or at FVTOCI, lease receivables, trade receivables and contract assets. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group always recognises lifetime ECL for trade receivables, contract assets and lease receivables.

For all other financial instruments and in the case of the company intercompany receivables, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12 months of ECLs.

The measurement of expected credit losses is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information.

(iii) Financial liabilities

All financial liabilities are measured subsequently at amortised cost using the effective interest method or at FVTPL.

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognised in profit or loss to the extent that they are not part of a designated hedging relationship (see Hedge accounting policy). The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability and is included in profit or loss.

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held-for-trading, or (iii) designated as at FVTPL, are measured subsequently at amortised cost using the effective interest method.

(iv) Derivative financial instruments and hedge accounting

In the ordinary course of business the Group uses certain derivative financial instruments to reduce business risks which arise from its exposure to foreign exchange, base metal prices and interest rate fluctuations. The instruments are confined principally to forward foreign exchange contracts, forward rate agreements, interest rate swaps and London Metal Exchange ('LME') contracts. The instruments are employed as economic hedges of transactions included in the accounts or forecast for firm contractual commitments. Contracts do not generally extend beyond 6 months, except for certain interest rate swaps and commodity contracts.

Derivatives are initially accounted for and measured at fair value from the date the derivative contract is taken out. Following this, at each subsequent reporting period end the derivative is re-measured at its current fair value. For forward currency contracts, interest rate swaps and commodity contracts the fair values are determined based on market forward rates at the end of the reporting period. The Group seeks to adopt hedge accounting for these currency, interest rate and commodity contracts. At inception of the hedge relationship, the group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. This documentation includes, inter alia, items such as identification of the hedged item or transaction and the nature of the risk being hedged. At inception each hedge is expected to be highly effective in achieving an offset of changes in fair value or cash flows attributable to the hedged risk. The methodology of testing the effectiveness and the reliability of this approach for testing is also considered and documented at inception. This effectiveness is assessed on an ongoing basis throughout the life cycle of the hedging relationship. In particular, only forecast transactions that are highly probable are subject to cash flow hedges. Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows are recognised directly in equity and the ineffective portion is recognised immediately in profit and loss. If the cash flow hedge of a firm commitment or forecasted transaction results in the recognition of a non-financial asset or liability, then, at the time the asset or liability is recognised, the associated gains or losses on the derivative that had previously been recognised in equity are included in the initial measurement of the asset or liability. For hedges that do not result in the recognition of a non-financial asset or a liability, amounts deferred in equity are recognised in profit and loss in the same period in which the hedged item affects profit and loss.

For an effective hedge of an exposure to changes in fair value, the hedged item is adjusted for changes attributable to the risk being hedged with the corresponding entry in profit and loss. Gains or losses from re-measuring the associated derivative are also recognised in profit and loss.

Changes in the fair value of derivative financial instruments that do not qualify for hedge accounting are recognised in profit and loss as they arise.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, exercised or no longer qualifies for hedge accounting. At that time, any cumulative gain or loss on the hedging instrument recognised in equity is retained in equity until the forecasted transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is reclassified to net profit or loss for the period.

(v) Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

Derivatives embedded in hybrid contracts with a financial asset host within the scope of IFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured as either amortised cost or fair value as appropriate.

Derivatives embedded in hybrid contracts with hosts that are not financial assets within the scope of IFRS 9 (e.g. financial liabilities) are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

If the hybrid contract is a quoted financial liability, instead of separating the embedded derivative, the Group generally designates the whole hybrid contract at FVTPL.

An embedded derivative is presented as a non-current asset or non-current liability if the remaining maturity of the hybrid instrument to which the embedded derivative relates is more than 12 months and is not expected to be realised or settled within 12 months.

(i) Other intangible assets

Patents, trademarks and software are included in the balance sheet as intangible assets where they are clearly linked to long term economic benefits for the Group. In this case they are measured initially at fair value on acquisition or purchase cost and then amortised on a straight-line basis over their estimated useful lives. All other costs on patents, trademarks and software are expensed in profit and loss as incurred.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. Costs incurred on individual development projects are recognised as intangible assets from the date that all of the following conditions are met:

(i) completion of the development is technically feasible;
(ii) it is the intention to complete the intangible asset and use or sell it;
(iii) it is clear that the intangible asset will generate probable future economic benefits;
(iv) adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available; and
(v) it is possible to reliably measure the expenditure attributable to the intangible asset during its development.

Costs are no longer recognised as an asset when the project is complete and available for its intended use, or if these criteria no longer apply. The approach to amortisation and impairment of other intangible assets is described in section VI (b) above.

Where development activities do not meet the conditions for recognition as an asset, any associated expenditure is treated as an expense in the period in which it is incurred.

Where the group purchases emission rights from an emission trading scheme, it recognises these as an intangible asset, and values the asset at cost. No amortisation is recognised, provided that the group intends to utilise the asset to settle emission rights liabilities.

(j) Leases

As a lessee, the Group assesses if a contract is or contains a lease at the inception of the contract. A contract is or contains a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognises a right-of-use asset and a lease liability at the commencement date, except for short-term leases of twelve months or less, leases for which the underlying asset is low value and leases of intangible assets, which are expensed in the consolidated income statement on a straight-line basis over the lease term.

The lease liability is initially measured at the present value of the lease payments that are not paid at that date, discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses the incremental borrowing rate.

Lease payments can include fixed payments, variable payments that depend on an index or rate known at the commencement date and extension options, if the Group is reasonable certain to exercise the option. Lease liabilities are classified as part of borrowings.

The associated right-of-use asset is capitalised equal to the lease liability and disclosed together with property, plant and equipment. The right-of-use asset is subsequently depreciated on a straight-line basis over the lease term. Right-of-use assets are also subject to testing for impairment if there is an indicator for impairment.

Variable lease payments not included in the measurement of the lease liabilities are expensed in the consolidated income statement in the period in which the events or conditions which trigger those payments occur.

(k) Joint ventures, joint operations and associates

The results and assets and liabilities of joint ventures and associates are incorporated in the accounts using the equity method of accounting, except where classified as held for sale (see section (l) below).

Investments in joint ventures and associates are initially measured at cost. Any excess of the cost of acquisition over the Group's share of the fair values of the identifiable net assets acquired, being goodwill, is included within the carrying value of the joint venture or associate and is subsequently tested for impairment on an annual basis.

Any deficiency of the cost of acquisition below the Group's share of the fair values of the identifiable net assets acquired is credited to profit or loss in the period of acquisition. The Group's share of post-acquisition profits and losses is recognised in profit and loss, and its share of post-acquisition movement in reserves are recognised directly in reserves. Losses of associates in excess of the Group's interest in those associates are not recognised, unless the Group has incurred obligations or made payments on behalf of the associate.

Unrealised gains on transactions with joint ventures or associates are eliminated to the extent of the Group's interest in those entities and, where material, the results of joint ventures and associates are modified to conform to the Group's policies.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. Joint operations are accounted for by recognising the share of assets, liabilities, expenses and income relating to the joint operation.

(l) Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Assets and disposal groups are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is only met when the sale is highly probable and the asset, or disposal group, is available for immediate sale in its present condition and is marketed for sale at a price that is reasonable in relation to its current fair value. The Group must also be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Where a disposal group represents a separate major line of business or geographical area of operations, or is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations, then it is treated as a discontinued operation. The post-tax profit or loss of this discontinued operation together with the gain or loss recognised on its disposal are disclosed as a single amount on the face of the income statement, with all prior periods being presented on this basis.

(m) Inventories

Inventories of raw materials are valued at the lower of cost and net realisable value. Cost is generally determined using the weighted average cost method. Inventories of partly processed materials, finished products and stores are individually valued at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Net realisable value is the price at which the inventories can be realised in the normal course of business after allowing for the cost of conversion from their existing state to a finished condition and for the cost of marketing, selling and distribution. Provisions are made to cover slow moving and obsolete items based on historical experience of utilisation on a product category basis, which involves individual businesses considering their local product lines and market conditions.

(n) Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the balance sheet.

(o) Equity

Share capital: Ordinary shares are classified as equity.

Dividend distribution to the Company's shareholders is recognised as a liability in the Company's annual accounts in the period in which the dividends are approved by the Company's shareholders. Where dividends are paid in kind the asset transferred is measured at fair value and any difference between the fair value and the carrying value of the asset is recognised in the income statement.

(p) Cash flow statement

The Cash flow statement has been prepared using the indirect method. Cash flows in foreign currencies have been translated into euros using average exchange rates, approximating the foreign exchange rate at transaction date. Exchange rate differences on cash items are shown separately in the Cash flow statement.
Receipts and payments with respect to income tax and interest are included in the Cash flows from operating activities. The cost of acquisition of subsidiaries, associates and joint ventures, and other investments, insofar as it was paid for in cash, is included in Cash flows from investing activities. Acquisitions or divestments of subsidiaries are presented net of cash balances acquired or disposed of, respectively. Cash flows from derivatives are recognized in the Cash flow statement in the same category as those of the hedged item.

Notes to the consolidated accounts

1. Revenue

The Group derives its revenue from contracts with customers for the transfer of goods and services over time and at a point in time in the following major geographic regions. Substantially all revenue is derived from the sale of goods.

	2021 €m	2020 €m
Revenue by destination:		
The Netherlands	**657**	716
Europe excluding the Netherlands	**2,820**	3,087
North America	**518**	547
Rest of the world	**352**	359
	4,347	4,709

2. Operating costs

	2021 €m	2020 €m
Costs by type:		
Raw materials and consumables	**2,153**	2,380
Maintenance costs (excluding own labour)	**348**	337
Other external charges (including fuels and utilities, hire charges and carriage costs)	**503**	567
Employment costs (Note 4)	**1,008**	1,017
Depreciation, amortisation and impairments (Note 8 and 9)	**236**	260
Regional development and other grants released (Note 23)	**(1)**	(1)
Other operating items (including rents, rates, insurance and general expenses)	**350**	331
Changes in inventory of finished goods and work in progress	**9**	39
Own work capitalised	**(36)**	(45)
Profit on disposal of property, plant and equipment	**(7)**	-
Profit on disposal of group companies (Note 31)	**(1)**	-
	4,562	4,885

The above costs include €27m (2020: €55m) in respect of restructuring and impairment which relate to Employment costs €11m (2020: €18m), Depreciation and amortisation €15m (2020: €35m) and Other operating items €1m (2020: €2m). Further analysis of restructuring and impairment costs is presented in Note 3.

	2021 €m	2020 €m
The above costs are stated after including:		
Amortisation of other intangible fixed assets (Note 8)	**10**	11
Impairment losses related to property, plant and equipment (Note 3)	**15**	35
Depreciation of owned assets (Note 9)	**192**	196
Depreciation of leased assets (Note 9)	**19**	19
Short term lease costs	**-**	2
Low value lease costs	**1**	1
Variable lease costs	**17**	15
Costs of research and development (gross)	**54**	57
Recoveries on research and development	**(3)**	(3)
Impairments against trade receivables (Note 15(ii))	**1**	2
Net exchange rate results	**7**	(1)
Emission rights costs	**59**	52

3. Restructuring and impairment costs

	2021 €m	2020 €m
Provision for restructuring and related measures:		
Redundancy and related costs (Note 4)	**11**	18
Impairment losses related to property, plant and equipment (Note 9)	**15**	35
Other rationalisation costs	**1**	2
	27	55

4. Employees

	2021 €m	2020 €m
The total employment costs of all employees (including directors) in the Group were:		
Wages and salaries	**773**	780
Social security costs	**120**	123
Pension costs (Note 30)	**104**	96
Redundancy and related costs (Note 3 and 21)	**11**	18
	1,008	1,017

During the year as a result of the COVID 19 pandemic, the Group has received €43m in relation to employment support from Governments in the countries in which it operates. This has been credited from the total wages and salaries expense during the year.

The average number of the Group's employees during the year was 11,370 (2020: 11,643). The analysis by business area and by country was:

	2021	2020		2021	2020
Strip Product Mainland Europe	**7,386**	7,564	The Netherlands	**9,413**	9,573
Speciality Businesses	**3,147**	3,156	France	**718**	730
Distribution & Sales Network	**347**	418	Germany	**602**	699
Corporate	**490**	505	Other	**637**	641

Other pension costs can be further analysed as follows:

	2021 €m	2020 €m
Defined benefit schemes (Note 30)	**4**	1
Defined contribution schemes (Note 30)	**100**	95
	104	96

5. Financing items

	2021 €m	2020 €m
Interest expense:		
Bank and other borrowings	**(5)**	(4)
Leases	**(5)**	(5)
Finance costs	**(10)**	(9)
Interest income:		
From Group companies	**6**	7
Finance income	**6**	7
	(4)	(2)

6. Taxation

	2021 €m	2020 €m
Dutch corporation tax	**(44)**	(28)
Dutch prior year corporation tax	**(5)**	21
Other corporation tax	**-**	(2)
Other prior year corporation tax	**(4)**	2
Current tax	**(53)**	(7)
Dutch deferred tax	**(20)**	(42)
Other deferred tax	**(1)**	(1)
Taxation	**(74)**	(50)

In addition to the total taxation credited to the income statement, an amount of €7m has been charged in other comprehensive income in the year (2020: a credit of €6m).

The total charge for the year can be reconciled to the accounting profit as follows:

	2021 €m	2020 €m
Loss before taxation	**(213)**	(175)
Loss before taxation multiplied by the Applicable corporation tax rate of 25.11% (2020: 25.73%)	**(53)**	(45)
Effects of:		
Adjustments to current tax in respect of prior periods	**(9)**	19
Adjustments to deferred tax in respect of prior periods	**-**	(26)
Change in tax rates(i)	**(6)**	(2)
Changes in unrecognised losses and other tax benefits	**-**	10
Other differences	**(6)**	(6)
Total taxation	**(74)**	(50)

(i) €6m credit in current year relates to the deferred tax impact of the increase in the future Dutch corporate income tax rate from 21.7% to 25.0% effective from 1 January 2021. €2m credit in prior year relates to the deferred tax impact of the increase in the future Dutch corporate income tax rate from 20.5% to 21.7% effective from 1 January 2020.

The applicable corporation tax rate of 25.11% for 2020-21 is the average tax rate weighted in proportion to the accounting (losses)/profits earned in each geographical area. All results arise on continuing activities.

7. Goodwill

	2021 €m	2020 €m
Net book value	**8**	8

Goodwill acquired in a business combination is allocated, at acquisition, to the cash generating units that are expected to benefit from that combination. TSN tests goodwill annually for impairment, or more frequently if there are any indications that goodwill might be impaired. In addition, property, plant and equipment (included within note 9) is tested for impairment where there are indicators of impairment.

The outcome of the Group's goodwill impairment test as at 31 March 2021 resulted in no impairment of goodwill (2020: no impairment).

8. Other intangible assets

2021	Computer software €m	Development costs €m	Patents and trademarks €m	Emission Rights €m	**Total €m**
Cost at beginning of period	135	39	1	5	**180**
Additions	6	-	-	28	**34**
Utilisation	-	-	-	(5)	**(5)**
Cost at end of period	141	39	1	28	**209**
Amortisation at beginning of period	55	38	1	-	**94**
Charge for the period	9	1	-	-	**10**
Amortisation at end of the period	64	39	1	-	**104**
Net book value at end of the period	77	-	-	28	**105**

2020	Computer software €m	Development costs €m	Patents and trademarks €m	Emission Rights €m	**Total €m**
Cost at beginning of period	120	39	1	23	**183**
Additions	15	-	-	-	**15**
Utilisation	-	-	-	(18)	**(18)**
Cost at end of period	135	39	1	5	**180**
Amortisation at beginning of period	47	35	1	-	**83**
Charge for the period	8	3	-	-	**11**
Amortisation at end of the period	55	38	1	-	**94**
Net book value at end of the period	80	1	-	5	**86**

The remaining amortisation period for development costs is 0 years (2020: 1 year).

9. Property, plant and equipment

2021	Land and buildings €m	Plant and machinery €m	Assets under construction €m	**Total €m**
Cost or valuation at the beginning of period	1,175	7,057	589	**8,821**
Additions	1	80	197	**278**
Exchange rate movements	(3)	(10)	-	**(13)**
Transfers to/(from) assets under construction	21	117	(138)	**-**
Disposals	(2)	(123)	-	**(125)**
Cost or valuation at end of period	1,192	7,121	648	**8,961**
Depreciation at the beginning of period	919	5,862	2	**6,783**
Charge for the period	21	190	-	**211**
Impairment charge for the period	3	12	-	**15**
Exchange rate movements	(3)	(10)	-	**(13)**
Disposals	(4)	(96)	-	**(100)**
Depreciation at end of period	936	5,958	2	**6,896**
Net book value at end of period	256	1,163	646	**2,065**

2020	Land and buildings €m	Plant and machinery €m	Assets under construction €m	Total €m
Cost or valuation as at 31 March 2019	1,153	6,858	477	**8,488**
Adoption of IFRS 16	23	31	-	**54**
Cost or valuation as at 1 April 2019	1,176	6,889	477	**8,542**
Additions	2	83	248	**333**
Exchange rate movements	1	6	-	**7**
Transfers to/(from) assets under construction	(3)	139	(136)	**-**
Disposals	(1)	(60)	-	**(61)**
Cost or valuation at end of period	1,175	7,057	589	**8,821**
Depreciation at the beginning of period	897	5,671	-	**6,568**
Charge for the period	20	195	-	**215**
Impairment charge for the period	-	32	2	**34**
Exchange rate movements	2	4	-	**6**
Disposals	-	(40)	-	**(40)**
Depreciation at end of period	919	5,862	2	**6,783**
Net book value at end of period	256	1,195	587	**2,038**

The additions to the right-of-use assets during the 2021 financial period were €8m (2020: €9m).

Consistent with the annual test for impairment of goodwill as at 31 March 2021 (see note 7) property, plant and equipment was also tested for impairment at that date where indicators of impairment existed. This involves the Group estimating the recoverable amounts of individual Cash Generating Units (CGU).

The recoverable amount of the Group's most material CGU (Strip Products Mainland Europe) has been determined from a value in use calculation. The calculation uses cash flow forecasts based on the most recently approved financial budgets and strategic forecasts which cover a period of three years and future projections taking the analysis out to perpetuity based on a steady state, sustainable cash flow reflecting average steel industry conditions between successive peaks and troughs of profitability. Key assumptions for the value in use calculation are those regarding expected changes to selling prices and raw material costs, EU steel demand, exchange rates, the direct and indirect effect of carbon taxes, and a pre-tax discount rate of 8.1% (2020: 8.0%). Changes in selling prices, raw material costs, exchange rates and EU steel demand are based on expectations of future changes in the steel market based on external market sources.

In preparing the value in use calculation TSN has considered the effect that climate related risks may have on its future cash flow generation. Included within the cash flow forecasts are estimates for costs of compliance under the EU Emissions Trading Scheme based on the Group's estimated shortfall between free allowances under the scheme and actual emissions. The forecasts also consider the ability of the Group to fully mitigate these costs through a variety of different means including the ability to pass these costs onto customers and this is reflected in the long term steady state cash flow of the Strip Products MLE CGU.

The Strip Products Mainland Europe CGU may also incur additional costs in the future under a Netherlands specific carbon tax regime which has the effect of supplementing the price of EU emissions allowances (EUA's) in the EU ETS if they fall below a pre-determined, and increasing, annual threshold. Given the current price of EUA's and expected free allowances, the Netherlands specific carbon tax is not expected to apply to the Strip Products MLE CGU during the 3 years covered by the approved financial budgets and strategic forecasts. The extent of such costs in the longer term is uncertain given the relationship with the price of the EUA's, actual emissions (including the effect of decarbonisation investments), and a changing regulatory landscape (such as the proposed EU carbon border adjustment mechanism). In all cases TSN expects any future costs of the Netherlands specific carbon tax to be fully mitigated through a variety of different means including the ability to pass these costs onto customers and therefore the value in use calculation does not include any change to the long term steady state cash flow of the Strip Products MLE CGU arising from the introduction of this tax.

In the long term, it is expected that in order to meet TSN's goal of being carbon-neutral by 2050 and to reduce CO2 emissions by 40% by 2030 (compared to those in 2018) at its IJmuiden steelworks, technological changes in the primary steel production process within the Strip Products MLE CGU will be required. For example this may include Carbon Capture Use and Storage and/or the production of steel using hydrogen rather than coal. Further details on TSN's decarbonisation strategy are included on page 14. The technological shift required to enable the transition to carbon neutral will require significant long term investments that will be conditional upon national energy infrastructure, requirements for a global level playing field for the steel industry (e.g. EU carbon border adjustment mechanism), and access to sustainable finance which may include direct government support to the industry. Given the many uncertainties around decarbonisation, and that these long term investments are not committed, these long term investments have not been factored into the value in use projections.

A nil growth rate is used to extrapolate the cash flow projections beyond the three-year period of the financial budgets. The pre-tax discount rate of 8.1% (2020: 8.0%) is derived from the Group's weighted average cost of capital ('WACC') and the WACCs of its main European steel competitors. The outcome of the Group's PPE impairment test as at 31 March 2021 for the Strip Products Mainland Europe CGU resulted in no impairment of PPE (2020: £nil).

At 31 March 2021 the value in use exceeded the carrying value of the CGU by €2,460m. The Group has conducted sensitivity analysis on the impairment test of the carrying value of the Strip Products MLE CGU. The Board of Management believe that no reasonable possible change in any of the key assumptions used in the value in use calculation would cause the carrying value of the PPE to materially exceed its value in use. In a worst case scenario where the Netherlands specific carbon tax and the estimated costs of compliance under the EU Emissions Trading Scheme were to negatively impact on the long term steady state cash flow of the CGU without any mitigation of such costs, the headroom of the value in use above the carrying value of the CGU could reduce by up to €226m for every 5% of the costs which were not mitigated.

The outcome of the test for the Group's other CGUs indicated that the value in use was higher than the carrying value of PPE, except for the Unitol and Tubes Nederland businesses. Accordingly an impairment charge of €15m (2020: €34m) has been recognised in the year. This impairment consists of €4m for Unitol, €2m for Tubes Nederland, and also €9m for specific assets at Tata Steel IJmuiden.

Net book value as at March	**2021 €m**	2020 €m
The net book value of land and buildings compromises:		
Freehold	**188**	180
Long leasehold (over 50 years unexpired)	**-**	-
Short leasehold (in less than 50 years expired)	**68**	76
	256	256
Which may be further analysed as:		
Assets held under lease:		
Cost	**117**	117
Accumulated depreciation	**(48)**	(41)
	69	76
Owned assets	**187**	180
	256	256

The net book value of plant and machinery compromises:		
Assets held under lease:		
Cost	**132**	134
Accumulated depreciation	**(94)**	(90)
	38	44
Owned assets	**1,125**	1,150
	1,163	1,194

There were no borrowing costs capitalised during the year (2020: nil).

10. Equity accounted investments

	Interest in joint ventures €m	Investments in associates €m	**2021 Total €m**	2020 Total €m
Cost at beginning and end of period	7	8	**15**	15
Share of post-acquisition reserves at beginning of period	16	11	**27**	27
Share of results in period retained	-	3	**3**	3
Dividends	(4)	(2)	**(6)**	(3)
Share of post-acquisition reserves at end of period	12	12	**24**	27
Net book value at end of period	19	20	**39**	42
Net book value at beginning of period	23	19	**42**	42

For further details of these companies, please refer to note 33. Subsidiaries and investments.

(i) Summarised information in respect of the Group's joint ventures is presented below:

	2021 €m	2020 €m
The share of assets and liabilities of the Group's joint ventures is as follows:		
Non-current assets	**13**	15
Current assets	**23**	27
Current liabilities	**(14)**	(15)
Non-current liabilities	**(3)**	(4)
Group's share of net assets	**19**	23

The share of revenue and expenses of the Group's joint ventures are as follows:

Revenue	**72**	89
Expenses	**(72)**	(89)
Group's share of joint ventures' profit for the period	**-**	-
Dividend received	**(4)**	-
Group's share of retained profit for the period	**(4)**	-

(ii) Summarised information in respect of Group's associates is presented below:

As at 31 March	2021 €m	2020 €m
Summarised balance sheet information		
Total assets	**100**	93
Total liabilities	**(39)**	(33)
Net assets	**61**	60
Group's share of net assets	**20**	19

Summarised income statement information		
Revenue	**260**	314
Profit for the period	**10**	7
Group's share of associates profit for the period	**3**	3
Dividend received	**(2)**	(3)
Group's share of retained profit for the period	**1**	-

(iii) The share of post-tax profits of joint ventures and associates as disclosed in the income statement arose as follows:

	2021 €m	2020 €m
Group's share of joint ventures' profit for the period	**-**	-
Group's share of associates profit for the period	**3**	3
Sale adjustment	**3**	-
Total profit on joint ventures and associates for the year	**6**	3

(iv) During the year, deferred consideration of €3m, which was previously impaired, was received in respect of the sale of Danielli Corus Technical Services BV.

11. Other investments

	Other loans and receivables €m	Other investments €m	2021 Total €m	2020 Total €m
Carrying value at beginning of period	4	2	**6**	**7**
Disposals	-	-	**-**	**(1)**
Carrying value at end of period	4	2	**6**	**6**

12. Other non-current assets

As at 31 March	2021 €m	2020 €m
Other receivables	**3**	3

13. Inventories

As at 31 March	2021 €m	2020 €m
Raw materials and consumables	**301**	334
Work in progress	**310**	313
Finished goods and goods for resale	**332**	339
	943	986

The value of inventories above is stated after impairment of €28m (2020: €26m) for obsolescence and write-downs to net realisable value. Work in progress includes semi-finished and partly processed materials.

14. Tax assets/(liabilities)

2021	**Assets €m**	**Liabilities €m**
Dutch corporation tax – Current	**83**	**(5)**
Other corporation tax – Current	**6**	**(1)**
	89	**(6)**

2020	Assets €m	Liabilities €m
Other corporation tax – Non-current	1	-
Dutch corporation tax – Current	35	(138)
Other corporation tax - Current	4	(4)
	40	(142)

As at 31 March 2021 the Dutch corporation tax balances contain a €78m net receivable owed by TSNH (2020: net payable of €103m).

During the year the Group settled a corporate income tax payment of €131m to TSNH by offsetting it against a loan receivable with TSNH.

15. Trade and other receivables

As at 31 March	**2021 €m**	2020 €m
Trade receivables	**357**	443
Less provision for expected credit losses	**(5)**	(6)
	352	437
Amounts owed by other Tata Steel companies (Note 32)	**204**	195
Amounts owed by joint ventures (Note 32)	**14**	9
Amounts owed by associates (Note 32)	**15**	10
Derivative financial instruments (Note 20)	**28**	8
Derivative financial instruments owed by Group companies (Note 20 + Note 32)	**-**	4
Other taxation	**11**	16
Prepayments	**23**	20
Other receivables	**53**	46
Loans to other Tata Steel companies (Note 32)	**82**	218
Interest owed by other Tata Steel companies	**-**	1
	782	964

(i) Trade receivables are further analysed as follows:

As at 31 March 2021	**Gross amount €m**	**Subject to credit insurance cover €m**	**Impairment provision €m**	**Net credit risk €m**
Amounts not yet due	**292**	**(266)**	**-**	**26**
One month overdue	**29**	**(27)**	**-**	**2**
Two months overdue	**18**	**(16)**	**-**	**2**
Three months overdue	**3**	**(3)**	**-**	**-**
Greater than three months overdue	**15**	**(10)**	**(5)**	**-**
	357	**(322)**	**(5)**	**30**

As at 31 March 2020	Gross amount €m	Subject to credit insurance cover €m	Impairment provision €m	Net credit risk €m
Amounts not yet due	405	(379)	-	26
One month overdue	21	(20)	-	1
Two months overdue	3	(3)	-	-
Three months overdue	4	(2)	-	2
Greater than three months overdue	10	(3)	(6)	1
	443	(407)	(6)	30

The Group considers its maximum exposure to credit risk with respect to third party customers at 31 March 2021 to be €30m (2020: €30m), which is the fair value of trade receivables (after impairment provisions) less those that are subject to credit insurance cover as shown in the table above. The other classes of financial assets within trade and other receivables do not contain impaired assets. There is no concentration of credit risk with any particular third party customer.

Credit risk management is discussed further in Note 20(d).

(ii) Movements in the provision for impairment of receivables are as follows:

	2021 €m	2020 €m
At beginning of period	**6**	7
Impairments in the period (Note 2)	**1**	2
Amounts utilised, exchange rate translation and other movements	**(2)**	(3)
At end of period	**5**	6

(iii) The loans to other Tata Steel companies include amounts of €82m (2020: €218m) at a weighted average floating interest rate of 2.8% (2020: 3.8%).

(iv) Loans to other Tata Steel companies can be further analysed by currency as follows:

As at 31 March	2021 €m	2020 €m
Euros	**82**	206
US Dollar	**-**	12
	82	218

(v) Loans to other Tata Steel companies at 31 March 2021 include a loan to TSNH of €19m (2020: €150m) and a loan to Tata Steel UK Limited ('TSUK') of €50m (2020: €50m). In view of the full guarantees for these loans that have been provided by T S Global Holdings Pte Ltd ('TSGH') to TSN, Management is confident that these loans are fully recoverable. The guarantees expire on 10 July 2021 and are expected to be renewed in the next financial year. In addition, there are opportunities for future settlement of these loans with amounts payable to TSUK.

(vi) Amounts owed by other Tata Steel companies include trade receivables of €136m (2020: €138m) owed by TSUK and €68m (2020: €57m) owed by other Tata Steel companies.

16. Cash and short-term deposits

As at 31 March	2021 €m	2020 €m
Cash at bank and in hand	**82**	49
	82	49

The currency of cash balances of the Group is as follows:

	2021 €m	2020 €m
Sterling	**22**	-
Euros	**24**	36
US Dollars	**26**	4
Other currencies	**10**	9
	82	49

17. Trade and other payables

As at 31 March	2021 €m	2020 €m
Trade payables	**484**	460
Amounts owed to other Tata Steel companies	**44**	82
Amounts owed to associates	**4**	3
Other taxation and social security	**74**	39
Capital expenditure creditors	**116**	133
Derivative financial instruments (Note 20)	**-**	29
Derivative financial instruments owed to joint ventures (Note 20 + Note 32)	**-**	2
Derivative financial instruments owed to group companies (Note 20 + Note 32)	**4**	-
Other payables	**366**	277
	1,092	1,025

Other payables include amounts provided in respect of insurances, holiday pay, other employment costs including COVID-19 employment support from Governments for which the Group has received cash but not qualified for the grant and sundry other items.

18. Borrowings

	2021 €m	2020 €m
Current:		
Bank overdrafts	**-**	5
Bank and other loans	**1**	-
Loans from other Tata Steel companies	**6**	9
Lease liabilities	**17**	19
	24	33

	2021 €m	2020 €m
Non-current:		
Lease liabilities	**82**	91
Bank and other loans	**3**	1
	85	92
Total borrowings	**109**	125

(i) The currency and interest rate exposure of gross borrowings of the Group at the end of the period is as follows:

	2021				2020			
	Fixed rate borrowings €m	**Floating rate borrowings €m**	**Zero rate borrowings €m**	**Total €m**	Fixed rate borrowings €m	Floating rate borrowings €m	Zero rate borrowings €m	Total €m
Euros	**100**	**-**	**6**	**106**	111	4	7	122
USD	**2**	**-**	**-**	**2**	1	1	-	2
Other	**1**	**-**	**-**	**1**	1	-	-	1
Total	**103**	**-**	**6**	**109**	113	5	7	125

	2021		2020	
	Weighted average fixed interest rate %	**Weighted average time for which rate is fixed Years**	Weighted average fixed interest rate %	Weighted average time for which rate is fixed Years
Euros	**4.3**	**6.4**	4.7	7.4

The weighted average interest rate on short-term borrowings from other Tata Steel companies was nil% (2020: 0.2%).

(ii) The maturity of borrowings is as follows:

	2021 €m	2020 €m
In one year or less or on demand	**27**	37
Between one and two years	**17**	18
Between two and three years	**13**	15
Between three and four years	**17**	12
Between four and five years	**9**	17
More than five years	**38**	47
	121	146
Less: amounts representing interest in future minimum lease payments	**(12)**	(21)
	109	125
Analysed as:		
Current liabilities	**24**	33
Non-current liabilities	**85**	92

(iii) Amounts payable under leases are as follows:

	Minimum lease payments		Present value of minimum lease payment	
	2021 €m	2020 €m	**2021 €m**	2020 €m
Not later than one year	**20**	23	**17**	19
Later than one year but not more than five years	**53**	61	**47**	49
More than five years	**38**	47	**35**	42
	111	131	**99**	110
Less: future finance charges on leases	**(12)**	(21)	**-**	-
Present value of lease liabilities	**99**	110	**99**	110

The lease portfolio of the Group consists of leases of land, building, machinery and vehicles.

(iv) The maturity of undrawn committed borrowing facilities of the Group is as follows:

	2021 €m	2020 €m
Later than one year but not more than five years	**550**	550
	550	550

TSN has exclusive access to a revolving credit facility of €150m. Each advance would bear interest equal to EURIBOR + 2.20% per annum. As of 31 Mach 2021 the full €150m was undrawn (31 March 2020: €150m undrawn). See Financial Review on page 7 for further details.

TSN also has an internal loan facility available of €400m with Tata Steel UK Holdings Limited ('TSUKH') and TSNH, due to expire in April 2023. Each advance would bear interest equal to LIBOR plus a margin of 0.5% per annum and there are no financial covenants. The full €400m facility was undrawn on 31 March 2021 (31 March 2020: €400m undrawn)

TSUKH and TSNH agreed that in the event the €400m internal loan facility and the €150m RCF are fully drawn by TSN or not available, TSN may approach, at its own discretion and independently, the banking syndicate in TSNH's SFA directly for additional credit lines.

(v) Furthermore the Group has uncommitted short-term bank facilities in various countries (the Netherlands, France, Germany, Belgium and Switzerland) mostly within the framework of daily treasury operations such as cash pooling but also in order to have guaranteed facilities available related to commercial transactions.

19. Other non-current liabilities

As at 31 March	**2021 €m**	2020 €m
Other taxation and social security	**66**	-
Other creditors	**2**	2
	68	2

Other taxation and social security relates to deferred payroll taxes and are due for repayment within three years. These payroll tax deferrals were granted in response to the COVID 19 pandemic.

20. Financial instruments and risk management

(i) Financial assets and financial liabilities recognised in the balance sheet

The carrying amounts of the Group's financial assets and financial liabilities (excluding derivative assets and liabilities) are:

	2021 €m	2020 €m
Financial assets		
Other loans and receivables (Note 11)	**4**	4
Trade and other receivables (Note 15) [1]	**720**	918
Cash and cash equivalents (Note 16)	**82**	49
Other non-current assets (Note 12)	**3**	3
	809	974
Financial liabilities		
Financial liabilities at amortised cost:		
Trade and other payables (Note 17) [2]	**(1,014)**	(955)
Current borrowings (Note 18)	**(24)**	(33)
Non-current borrowings (Note 18)	**(85)**	(92)
	(1,123)	(1,080)
	(314)	(106)

[1] Excludes derivatives, other taxation and prepayments
[2] Excludes derivatives, other taxation and social security

The carrying amounts of financial assets and financial liabilities recorded at amortised cost in the financial statements approximate their fair values with the exception of current and non-current borrowings. The fair value of these are €23m and €82m respectively. The fair value of borrowings would be classified as Level 3 within the fair value hierarchy. The fair value is based on discounted cash flows and reflects the credit risk of counterparties.

(ii) Fair value measurements recognised in the balance sheet

The following table categorises the Group's financial instruments held at fair value by the valuation methodology applied in determining this value. Where possible, quoted prices in active markets for identical assets and liabilities are used (Level 1). Where such prices are not available, the asset or liability is classified as Level 2, provided all significant inputs to the valuation model used are based on observable market data (this includes the Group's forward currency and commodity contracts). The Group's derivative financial assets and liabilities are categorised as Level 2 and their valuation is based on future cash flows (estimated from observable data such as forward exchange rates and yield curves) which are, where material, discounted at a rate which reflects the credit risk of counterparties. If one or more of the significant inputs to the valuation model is not based on observable market data, the instrument is classified as Level 3.

2021	Level 1 €m	Level 2 €m	Level 3 €m	**Total €m**
Financial assets at fair value through other comprehensive income:				
Commodity contracts	-	**15**	-	**15**
Forward foreign currency contracts	**-**	**14**	**-**	**14**
	-	**29**	**-**	**29**
Financial liabilities at fair value through other comprehensive income:				
Commodity contracts	**-**	**(4)**	**-**	**(4)**
Forward foreign currency contracts	**-**	**-**	**-**	**-**
	-	**(4)**	**-**	**(4)**

2020	Level 1 €m	Level 2 €m	Level 3 €m	Total €m
Financial assets at fair value through other comprehensive income:				
Commodity contracts	-	5	-	5
Forward foreign currency contracts	-	7	-	7
	-	12	-	12
Financial liabilities at fair value through other comprehensive income:				
Commodity contracts	-	(26)	-	(26)
Forward foreign currency contracts	-	(5)	-	(5)
	-	(31)	-	(31)

There were no transfers between any of the levels during the periods represented above.

(iii) Financial risk management and financial instruments

The Group uses certain financial instruments to reduce business risks arising from its exposure to fluctuations in exchange rates and base metal prices. The instruments used, which are confined principally to forward foreign exchange contracts and London Metal Exchange contracts, involve elements of credit and market rate risk in excess of the amount recognised in the accounts.

Risk management is carried out by a central Treasury department and by a central commodity derivative trading team under policies approved by the BoM. The treasury department as well as the central commodity derivative trading team identify, evaluate and hedge financial risks in close cooperation with the Group's operating units.

(a) Market risk: Foreign exchange risk and management

It is the Group's policy that substantially all the net currency transaction exposure arising from contracted sales and purchases over an approximate 6 month time horizon is hedged by selling or purchasing foreign currency forwards. At 31 March 2021 the notional amounts of outstanding foreign currency contracts was €1,176m (2020: €1,018m) with a net fair value asset of €14m (2020: €2m asset).

As at 31 March 2021, a 10% appreciation of the Euro against the US dollar would decrease the net assets of TSN by approximately €2m (2020: €2m), decrease equity by approximately €2m (2020: €2m) and have no impact on the operating profit (2020: no impact). The sensitivity analysis has been based on the composition of the dollar denominated financial assets and liabilities of the Group at 31 March, excluding trade payables, trade receivables, other non-derivative financial instruments not in debt, and financial lease obligations, all of which do not present a material exposure.

As at 31 March 2021, a 10% appreciation of the Euro against the Sterling would decrease the net assets of TSN by approximately €2m (2020: no impact), decrease equity by approximately €2m (2020: no impact) and have no impact on the operating profit (2020: no impact).

The net positions of the Euro versus other currencies are of less importance and the sensitivity of a 10% weakening/strengthening of the Euro is therefore not significant.

(b) Market risk: Commodity risk and management

The Group makes use of commodity futures contracts to manage its purchase price risk for certain commodities. Forward purchases are made for zinc, tin and nickel to cover sales contracts with fixed metal prices and for carbon emission rights based on predicted future emission deficit. At 31 March 2021 the Group had commodity contracts with a total notional value of €177m (2020: €229m) and a net fair value asset of €11m (2020: €21m liability).

As at 31 March 2021, a 10% decrease of the market prices of zinc, tin, nickel and carbon emission rights would decrease the equity of TSN by approximately €3m (2020: €7m). There was no significant market risk relating to the income statement since the majority of commodity derivatives are treated as cash flow hedges with movements being reflected in equity and the timing and recognition in the income statement depending on the point at which the underlying hedged transactions are also recognised.

(c) Market risk: Interest rate risk and management

The financial structure of the Group includes only a small percentage of net assets that have been financed by loans. During 2021 and 2020, most of the Group's borrowings were denominated in Euros. The Group did not enter into interest rate swap contracts or forward rate agreements. For further details of the borrowings, such as maturity and interest rates, see Note 18.

As at 31 March 2021 the Group had fixed rate borrowings of €103m (2020: €113m), floating rate borrowings €nil (2020: €5m) and zero rate borrowings of €6m (2020: €7m). If at 31 March 2021 the interest rate would have been 100 bps higher/lower, with all other variables held constant, there would be no impact on profit after taxes (2020: no impact). There would also have been no impact on the cashflow (2020: no impact).

(d) Credit risk

Cash deposits, trade receivables and other financial instruments give rise to credit risk for the Group arising from the amounts and obligations due from counter-parties. The credit risk on short-term deposits is managed by limiting the aggregate amount and duration of exposure to any one counter party, depending on its credit rating and other credit information, and by regular reviews of these ratings. The possibility of material loss arising in the event of non-performance is considered unlikely.

Sector sales teams, supported by TSE's central credit risk management department, are responsible for controlling the credit risk arising from the Group's normal commercial operations, although they must act within a series of centrally agreed guidelines. Trade receivables are, where appropriate, subject to a credit insurance programme, and regular reviews are undertaken of exposures to key customers and those where known risks have arisen or still persist. Any expected credit losses are reflected in the income statement.

Credit risk also arises from the possible failure of counter-parties to meet their obligations under currency and commodity hedging instruments. However, counter parties are established banks and financial institutions with high credit ratings and the

Group continually monitors each institution's credit quality and limits as a matter of policy the amount of credit exposure to any one of them. The Group's theoretical risk is the cost of replacement at current market prices of these transactions in the event of default by counter-parties. The Group believes that the risk of incurring such losses is remote and underlying principal amounts are not at risk.

(e) Liquidity risk

Liquidity risk is defined as the risk that the Group could not be able to settle or meet its financial liabilities on time and at a reasonable price. The Treasury department is responsible for liquidity and funding, and manages the liquidity risk by maintaining sufficient cash resources and by maintaining the availability of funding through available committed and uncommitted credit facilities, for further information on the credit lines see Note 18. The management of the liquidity risk is based on the calculation of the future net liquidity which results from the expected cash outflows and inflows.

The following table is a maturity analysis of the anticipated contractual cash flows including interest payable for the Group's derivative and non-derivative financial liabilities on an undiscounted basis, which therefore differs from both the carrying value and fair value. Floating interest rate is estimated using the prevailing interest rate at the end of the reporting period. Cash flows in foreign currencies are translated using the period end spot rates at 31 March 2021.

Liquidity risk

	Maturity of contractual undiscounted cash flows			
At 31 March 2021	**Contractual cash flows €m**	**In one year or less or on demand €m**	**Between one and five years €m**	**More than five years €m**
Non-derivative financial liabilities				
Trade and other payables [1]	**(1,014)**	**(1,014)**	**-**	**-**
Borrowings				
Repayment	**(109)**	**(24)**	**(49)**	**(36)**
Fixed interest	**(12)**	**(3)**	**(7)**	**(2)**
	(1,135)	**(1,041)**	**(56)**	**(38)**
Derivative financial (liabilities)/assets				
Foreign currency contracts				
Payables	**(1,162)**	**(1,162)**	**-**	**-**
Receivables	**1,176**	**1,176**	**-**	**-**
Derivatives commodities: net settlement	**11**	**11**	**-**	**-**
	25	**25**	**-**	**-**
Total	**(1,110)**	**(1,016)**	**(56)**	**(38)**

[1] Excludes derivatives, other taxation and social security and advances from customers

	Maturity of contractual undiscounted cash flows			
At 31 March 2020	Contractual cash flows €m	In one year or less or on demand €m	Between one and five years €m	More than five years €m
Non-derivative financial liabilities				
Trade and other payables [1]	(955)	(955)	-	-
Borrowings				
Repayment	(125)	(33)	(50)	(42)
Fixed interest	(21)	(4)	(11)	(6)
	(1,101)	(992)	(61)	(48)
Derivative financial (liabilities)/assets				
Foreign currency contracts				
Payables	(1,111)	(1,111)	-	-
Receivables	1,113	1,113	-	-
Derivatives commodities: net settlement	(21)	(21)		
	(19)	(19)	-	-
Total	(1,120)	(1,011)	(61)	(48)

[1] Excludes derivatives, other taxation and social security and advances from customers

(iv) Derivative financial instruments

The Group utilises currency and commodity derivatives to hedge significant future transactions and cash flows. These items gave rise to the following fair values that have been recognised in the balance sheet:

	2021		2020	
	Assets €m	**Liabilities €m**	Assets €m	Liabilities €m
Current:				
Commodity contracts	**15**	**(4)**	5	(26)
Forward foreign currency contracts	**14**	**-**	7	(5)
	29	**(4)**	12	(31)

The fair value of derivative financial instruments that were designated as cash flow hedges at the balance sheet date was:

	Forward foreign currency contracts €m	**Commodity contracts €m**	**Taxation €m**	**2021 €m**
Cash flow hedge reserve net of taxation at beginning of period	**6**	**(11)**	**1**	**(4)**
Fair value recognised	**7**	**24**	**(7)**	**24**
Cash flow hedge reserve net of taxation at end of period	**13**	**13**	**(6)**	**20**

Amounts recognised in the cash flow hedge reserve, excluding deferred tax, are expected to affect profit or loss within one year.

At the balance sheet date the notional amount of outstanding foreign currency and commodity contracts that the Group has committed to is as follows:

	2021 €m	2020 €m
Commodity contracts	**177**	229
Forward foreign currency contracts	**1,176**	1,018

During the year no ineffectiveness from foreign currency hedges was recognised in the income statement (2020: nil).

21. Provisions for liabilities and charges

	Rationalisation Costs (i) €m	Environmental Provisions (ii) €m	Guarantee commitments (iii) €m	Employee Benefits (iv) €m	Other (v) €m	**2021 Total €m**	2020 Total €m
At beginning of period	15	74	6	90	8	**193**	175
Charged to income statement	11	97	2	9	-	**119**	83
Released to income statement	-	(5)	-	-	(3)	**(8)**	(26)
Utilised during the period	(23)	(26)	(1)	-	(1)	**(51)**	(39)
At end of period	3	140	7	99	4	**253**	193
Analysed as:							
Current liabilities						**134**	73
Non-current liabilities						**119**	120

(i) Rationalisation costs include redundancy provisions as follows:

	2021 €m	2020 €m
At beginning of period	**14**	-
Charged to income statement (Note 4)	**11**	18
Utilised during the period	**(22)**	(4)
At end of period	**3**	14

(ii) The environmental provisions consist of remediation and clean-up activities that are likely to be undertaken in the foreseeable future and of which the costs can reasonably be estimated, together with provisions for CO_2 emission rights.

(iii) Guarantee commitments relate to the anticipated cost of any warranties offered to customers.

(iv) Provisions for employee benefits include long–term benefits such as long service and sabbatical leave, disability benefits and sick leave. All items are subject to independent actuarial assessments.

(v) 'Other' includes a net release of provisions of €3m (2020: net release of €14m) for costs in respect of anticipated customer claims.

22. Deferred tax

The following is the analysis of the deferred tax balances for balance sheet purposes:

	2021 €m	2020 €m
Deferred tax assets	**78**	64

The following are the major deferred tax assets and liabilities recognised by the Group, and the movements thereon, during the current and prior period.

2021	**Accelerated tax depreciation €m**	**Pension €m**	**Inventory €m**	**Provisions €m**	**Other €m**	**Total €m**
At beginning of period	17	4	3	37	3	**64**
Credited to income statement	2	3	-	16	-	**21**
Charged to other comprehensive income	-	-	-	-	(7)	**(7)**
At end of period	19	7	3	53	(4)	**78**

2020	Accelerated tax depreciation €m	Pension €m	Inventory €m	Provisions €m	Other €m	Total €m
At beginning of period	8	1	2	4	-	15
Credited/(charged) to income statement	9	3	1	33	(3)	43
Credited to other comprehensive income	-	-	-	-	6	6
At end of period	17	4	3	37	3	64

Deferred tax assets of €78m (2020: €64m) have been recognised at 31 March 2021. In evaluating whether it is probable that taxable profits will be earned in future accounting periods, all available evidence was considered, including TSN Supervisory Board approved budgets and forecasts. Following this evaluation, it was determined there would be sufficient taxable income generated to realise the benefit of the deferred tax assets. Deferred tax assets have not been recognised in respect of total tax losses of €335m (2020: €337m) which have no expiry date. Deferred tax assets have also not been recognised on deductible temporary differences of €86m (2020: €91m) which have no expiry.

At the balance sheet date there are temporary differences associated with undistributed earnings of subsidiaries. No liability has been recognised in respect of these differences because the vast majority of these differences occur in the Netherlands, for which the participation exemption applies.

23. Deferred income

	2021 Grants relating to property, plant and equipment €m	2020 **Grants relating to property, plant and equipment €m**
At beginning of period	**4**	5
Released to income statement (Note 2)	**(1)**	(1)
At end of period	**3**	4

24. Called-up share capital

For more detailed information on called-up share capital, see Parent Company Accounts, Note 7.

25. Future capital expenditure

	2021 €m	2020 €m
Contracted but not provided for	**78**	181
Authorised but contracts not yet placed	**331**	70

26. Exposure for cash outflows relating to leases

	2021 €m	2020 €m
Future exposure for cash outflows to the Group at the end of the period are:		
Future cash outflows relating to termination and extension options	**1**	1
Future cash outflows relating to leases committed but not yet commenced	**7**	7
	8	8

27. Contingencies

	2021 €m	2020 €m
Guarantees given under trade agreements	**34**	19
Others	**8**	17

The Group is also party to a number of contingent claims which may provide the Group with a future inflow or outflow of cash. No amount has been recorded in these financial statements on the basis that the Group does not consider it virtually certain that an amount will be received or no reliable estimate can yet be made for amounts to be paid (if any).

28. Reconciliation of net cash flow to movement in net funds

	2021 €m	2020 €m
Movement in loans to other Tata Steel companies	**(4)**	(9)
Movement in cash and short-term deposits	**38**	22
Movement in debt	**21**	26
Change in net debt resulting from cash flows in period	**55**	39
Effect of other non-cash movements	**(142)**	(63)
Movement in net debt in period	**(87)**	(24)
Net funds at beginning of period	**142**	166
Net funds at end of period	**55**	142

29. Analysis of changes in net funds

	1 April 2020 €m	Cash Flow €m	Other non-cash movements €m	31 March 2021 €m
Loans to other Tata Steel companies	218	(4)	(132)	**82**
Cash at bank and short-term deposits	49	33	-	**82**
Bank overdrafts	(5)	5	-	**-**
Cash and cash equivalents	44	38	-	**82**
Borrowings	(10)	1	(1)	**(10)**
Lease liabilities	(110)	20	(9)	**(99)**
Total debt excluding bank overdrafts	(120)	21	(10)	**(109)**
Total net funds	142	55	(142)	**55**

Other non-cash movements include settlement of loans to other Tata Steel companies which was offset against taxation payment of €131m (note 14) and lease liability additions in the year of €9m (2020: €9m).

30. Pensions and post-retirement benefits

Defined contribution schemes
TSN participates in a number of defined contribution plans on behalf of relevant personnel. Any expense recognised in relation to these schemes represents the value of contributions payable during the period by TSN at rates specified by the rules of those plans. The only amounts included in the balance sheet are those relating to the prior month's contributions that were not due to be paid until after the end of the reporting period. The total cost charged to the income statement in 2021 amounted to €100m (2020: €95m). Of the total cost of €100m, €95m (2019: €91m) related to payments to the Stichting Pensioenfonds Hoogovens ('SPH') pension scheme.

Defined benefit schemes
TSN operates a number of defined benefit pension and post-retirement schemes. There are multiple plans, the most significant of which are in Germany and the USA. Benefits offered by these schemes are largely based on pensionable pay and years of service at retirement. With the exception of plans in Germany and France, the assets of these schemes are held in administered funds that are legally separated from the company. The trustees of the pension fund are required by law to act in the interest of the fund and of all relevant stakeholders of the scheme, and are responsible for the investment policy with regard to the assets of the fund.

Within Germany, there are three types of defined benefit pension schemes, two of which are closed to new entrants. All of the schemes are unfunded. The scheme for active members in Germany is a pension commitment based on a percentage of the yearly income paid via the pension organisation 'Essener Verband'. The defined benefit schemes in the USA are closed for future accrual. TSN makes sufficient contributions required to fund the cost of benefits provided by the USA schemes and to increase the funding ratio to 100% over a period of 15 years. Pension provision for new entrants in the USA is by means of a defined contribution scheme.

TSN accounts for all pension and post-retirement benefit arrangements using IAS 19 '*Employee Benefits*' with independent actuaries being used to calculate the costs, assets and liabilities to be recognised in relation to these schemes. The present value of the defined benefit obligation, the current service cost and past service costs are calculated by these actuaries using the projected unit credit method. However, the ongoing funding arrangements of each scheme, in place to meet their long-term pension liabilities, are governed by the individual scheme rules and national legislation. The accounting and disclosure requirements of IAS 19 do not affect these funding arrangements.

Actuarial assumptions
A range of assumptions must be used to determine the IAS 19 amounts and the values to be included in the balance sheet and income statement can vary significantly with only small changes in these assumptions. Furthermore, the actuarial assumptions used may vary according to the country in which the plans are situated.

The key assumptions applied at the end of the reporting period for the purposes of the actuarial valuations were as follows:

2021	Germany %	USA %	Other %
Salary growth	2.00	2.00	1.00 to 2.00
Pension increases	1.75	0.00	0.00
Discount rate	0.84	3.00	0.40 to 0.70
Inflation	2.00	3.00	1.00 to 1.70

2020	Germany %	USA %	Other %
Salary growth	2.00	2.00	1.00 to 2.00
Pension increases	1.00 to 1.75	0.00	0.00
Discount rate	1.65	3.20	0.30 to 0.46
Inflation	2.00	3.00	1.00 to 1.70

The discount rate is set with reference to the current rate of return on AA rated corporate bonds of equivalent currency and term to the scheme liabilities. Projected inflation rates and pension increases are long-term predictions based mainly on the yield gap between long-term fixed interest and government bond securities.

Demographic assumptions are set having regard to the latest trends in life expectancy, plan experience and other relevant data, including externally published actuarial information within each national jurisdiction. The assumptions are reviewed and updated as necessary as part of the periodic actuarial funding valuations of the individual pension and post-retirement plans.

Income statement costs
Under IAS 19 costs in relation to pension and post-retirement plans mainly arise as follows:

- The current service cost is the actuarially determined present value of the pension benefits earned by employees in the current period. It excludes any charges or credits in respect of any deficit or surplus in the scheme respectively and so the cost is unrelated to whether, or how, the scheme is funded.
- Net interest cost / (income) on the liability or asset recognised in the balance sheet.

These items are treated as a net operating cost in the income statement within employment costs.

Variations from expected costs, arising from the experience of the plans or changes in actuarial assumptions, are recognised immediately in the statement of comprehensive income. Examples of such variations are differences between the discount rate used for calculating the return on scheme assets and the actual return, the remeasurement of scheme liabilities to reflect changes in discount rates, changes in demographic assumptions such as using updated mortality tables, or the effect of more employees leaving service than forecast.

Income statement pension costs arose as follows:

2021	Netherlands €m	Germany €m	USA €m	Other €m	**Total €m**
Current service cost	-	1	-	1	2
Net interest cost	-	1	1	-	2
Defined benefit schemes	-	2	1	1	4
Defined contribution schemes	95	-	1	4	100
Total charge for the period	95	2	2	5	**104**

2020	Netherlands €m	Germany €m	USA €m	Other €m	Total €m
Current service cost	-	1	1	1	3
Net interest cost	-	1	1	-	2
Past service credit	-	(2)	(2)	-	(4)
Defined benefit schemes	-	-	-	1	1
Defined contribution schemes	91	-	1	3	95
Total charge for the period	91	-	1	4	96

Plan assets
The asset classes of plan assets of the Groups' defined benefit schemes include national and international equities, fixed income government and non-government securities and real estate. The pension funds invest in diversified asset classes to maximise returns while reducing volatility. The percentage of total plan assets for each category of investment was as follows:

2021	USA %	Other[1] %
Quoted:		
Equities	63.5	33.7
Bonds – Fixed Rate	16.3	28.2
Other	15.7	-
	95.5	**61.9**
Unquoted:		
Real estate	2.0	20.7
Cash and cash equivalents	2.5	4.9
Other	-	12.5
	4.5	**38.1**
Total	**100.0**	**100.0**

2020	USA %	Other %
Quoted:		
Equities	**59.5**	**15.0**
Bonds – Fixed Rate	**14.8**	**75.0**
Other	**5.2**	**-**
	79.5	**90.0**
Unquoted:		
Real estate	**5.4**	**5.0**
Cash and cash equivalents	**15.1**	**5.0**
	20.5	**10.0**
Total	**100.0**	**100.0**

[1]Other predominantly relates to Montana Bausysteme AG.

Balance sheet measurement
In determining the amounts to be recognised in the balance sheet the following approach has been adopted:

- Pension scheme assets are measured at fair value (for example for quoted securities this is the bid-market value on the relevant public exchange).
- Pension liabilities include future benefits that will be paid to pensioners and deferred pensioners, and accrued benefits which will be paid in the future for members in service taking into account projected earnings. As noted above, the pension liabilities are discounted with reference to the current rate of return on AA rated corporate bonds of equivalent currency and term to the pension liability.

Amounts recognised in the balance sheet arose as follows:

2021	Germany €m	USA €m	Other €m	**Total €m**
Fair value of plan assets at end of period	-	89	22	111
Present value of obligation at end of period	(81)	(121)	(30)	(232)
Defined benefit liability at end of period	(81)	(32)	(8)	**(121)**
Disclosed as:				
Defined benefit liability - current	-	-	(1)	(1)
Defined benefit liability - non current	(81)	(32)	(7)	(120)
Defined benefit liability at end of period	(81)	(32)	(8)	**(121)**

2020	Germany €m	USA €m	Other €m	Total €m
Fair value of plan assets at end of period	-	79	23	102
Present value of obligation at end of period	(72)	(134)	(29)	(235)
Defined benefit liability at end of period	(72)	(55)	(6)	(133)
Disclosed as:				
Defined benefit liability - current	-	(1)	-	(1)
Defined benefit liability - non current	(72)	(54)	(6)	(132)
Defined benefit liability at end of period	(72)	(55)	(6)	(133)

The movements in the present value of plan assets and defined benefit obligations in 2021 and 2020 were as follows:

2021	Germany €m	USA €m	Other €m	**Total €m**
Plan assets:				
As at 1 April 2020	-	79	23	102
Actuarial gain due to financial assumption changes	-	14	-	14
Interest income on plan assets	-	2	-	2
Contributions from the employer	-	6	-	6
Benefits paid	-	(8)	1	(7)
Exchange rate movements	-	(4)	(2)	(6)
As at 31 March 2021	**-**	**89**	**22**	**111**
Benefit obligations:				
As at 1 April 2020	(72)	(134)	(29)	(235)
Current service cost	(1)	-	(1)	(2)
Interest cost on the defined benefit obligation	(1)	(3)	-	(4)
Actuarial loss due to financial assumption changes	(10)	(2)	-	(12)
Actuarial gain due to actuarial experience	1	-	-	1
Benefits paid	2	8	1	11
Exchange rate movements	-	10	(1)	9
As at 31 March 2021	(81)	(121)	(30)	**(232)**

Included within other schemes above are post-retirement medical and similar net obligations of €5m (2020: €6m).

2020	Germany €m	USA €m	Other €m	Total €m
Plan assets:				
As at 1 April 2019	-	78	21	99
Actuarial gain due to actuarial experience	-	-	1	1
Actuarial loss due to financial assumption changes	-	(1)	-	(1)
Interest income on plan assets	-	3	-	3
Contributions from the employer	-	6	1	7
Benefits paid	-	(9)	(1)	(10)
Exchange rate movements	-	2	1	3
As at 31 March 2020	-	79	23	102
Benefit obligations:				
As at 1 April 2019	(77)	(126)	(26)	(229)
Current service cost	(1)	(1)	(1)	(3)
Past service credit	2	2	-	4
Interest cost on the defined benefit obligation	(1)	(4)	-	(5)
Actuarial gain/(loss) due to financial assumption changes	3	(11)	(2)	(10)
Benefits paid	2	9	1	12
Exchange rate movements	-	(3)	(1)	(4)
As at 31 March 2020	(72)	(134)	(29)	(235)

Actuarial gains recorded in the Statement of Comprehensive Income for the period were €3m (2020: losses of €10m).

31. Disposal of Group companies

During the current year, the following two entities which entered liquidation in the prior year, completed liquidation and were subsequently dissolved:

Tata Steel International (Schweiz) AG (dissolved 28 December 2020)

Corus Tubes Poland Spólka z.o.o (dissolved 24 March 2021)

i) The profit on disposals were as follows:

2021	£m	£m
Cash received from subsidiary in liquidation[1]	1	
Profit on disposal of subsidiaries		1

[1] The Group received a €1m cash distribution from Tata Steel International (Schweiz) AG upon its solvent dissolution.

32. Related party transactions

The table below sets out details of transactions and loans between TSN, other Tata Steel companies, joint ventures and associates.

	2021 €m	2020 €m
Sales to joint ventures	**75**	95
Sales to associates	**105**	121
Sales to other Tata Steel companies	**330**	349
Purchases from joint ventures	**-**	1
Purchases from associates	**33**	35
Purchases of raw materials from other Tata Steel companies, acting as an agent	**1,150**	1,191
Other purchases from other Tata Steel companies	**240**	235
Net recharges to other Tata Steel companies	**(9)**	(3)
Amounts owed by other Tata Steel companies (Note 15)	**204**	195
Amounts owed by joint ventures (Note 15)	**14**	9
Amounts owed by associates (Note 15)	**15**	10
Derivative financial instruments owed by Group companies (Note 15)	**-**	4
Derivative financial instruments owed to Group companies (Note 17)	**4**	-
Derivative financial instruments owed to joint ventures (Note 17)	**-**	2
Amounts owed to other Tata Steel companies (Note 17)	**44**	82
Amounts owed to associates (Note 17)	**4**	3
Tax (receivable)/payable to TSNH (Note 14)	**(78)**	103
Loans to TSNH (Note 15)	**19**	150
Loans to other Tata Steel companies (Note 15)	**63**	68
Loans from other Tata Steel companies (Note 18)	**6**	9
Interest receivable from other Tata Steel companies (Note 15)	**-**	1

Under the terms of the Policy for Surplus Cash agreed between TSN, Tata Steel UK Limited (‘TSUK’) and TSNH, a short-term loan of €150m was granted by TSN to TSNH bearing a floating interest rate based on Euribor. The outstanding balance on this loan as at 31 March 2021 was €19m (31 March 2020: €150m). The interest rate and other conditions of this loan are in conformity with market conditions.

During the year, the were no (2020: €nil) sales or purchases with TSNH.

TSN’s Treasury department and a central commodity derivative trading team are responsible for the external hedging of currency and metal risks. They also enter into transactions with TSUK Treasury and other Tata Steel subsidiaries, which are not part of TSN. As at 31 March 2021 the fair value of the currency contracts with these parties was €3m liability (31 March 2020: €1m liability) and the fair value of the metal contracts with these parties amounted to a liability of €1m (31 March 2020: asset of €3m).

Transactions with related parties are made on terms equivalent to those that prevail in arm’s length transactions.

Details of transactions with key management personnel are given in ‘Further notes to and signing of the annual accounts’ on page 66.

33. Subsidiaries and investments

The subsidiary undertakings, joint ventures, joint operations and associates of TSN at 31 March 2021 are set out below. Country names are countries of incorporation. Undertakings operate principally in their country of incorporation except where otherwise stated.

Subsidiary undertakings
Steel producing, further processing or related activities:

Belgium
Société Européenne de Galvanisation (Segal) SA
Tata Steel Belgium Packaging Steels N.V.
Tata Steel Belgium Services NV

France
Corbeil Les Rives SCI (67.3%)
Inter Metal Distribution (I.M.D.) SAS
Tata Steel France Holdings SAS
Tata Steel France Bâtiments et Systèmes SAS
Tata Steel International (France) SAS
Tata Steel Maubeuge SAS
Unitol SAS

Finland
Naantali Steel Service Centre OY

Germany
Degels GmbH
Fischer Profil GmbH
Hille & Müller GmbH
S.A.B. Profil GmbH
Service Center Gelsenkirchen GmbH
Tata Steel Germany GmbH
Tata Steel International (Germany) GmbH

Italy
Tata Steel International (Italia) SRL

The Netherlands
C.V. Bénine (76.93%)
Demka B.V.
Huizenbezit Breesaap B.V.
S.A.B.Profiel B.V.
Staalverwerking en Handel B.V.
Tata Steel IJmuiden B.V.
Tata Steel Nederland Consulting & Technical Services B.V.
Tata Steel Nederland Services B.V.
Tata Steel Nederland Technology B.V.
Tata Steel Nederland Tubes B.V.

Sweden
Halmstad Steel Service Centre AB

Switzerland
Montana Bausysteme AG

USA
Apollo Metals, Ltd
Hille & Müller USA, Inc
Hoogovens USA, Inc
Oremco, Inc (70%)
Rafferty - Brown Steel Co. Inc. of Conn.
Tata Steel USA, Inc
Thomas Processing Comp.
Thomas Steel Strip Corp.

Unless indicated otherwise, subsidiary undertakings are wholly owned within TSN, and TSN holding comprises ordinary shares and 100% of the voting rights.

Joint ventures, joint operations and associates

	Classification	Products	2021 Turnover €m		Issued capital Number of shares	% held
France						
Albi Profils SARL	Associate	Construction of industrial buildings in southern France	-	-	-	30
Mexico						
Hoogovens Gan Multimedia SA de CV	Joint Venture	Inactive company (in liquidation)	-	-	-	50
The Netherlands						
GietWalsOnderhoudCombinatie B.V.	Associate	Maintenance of parts of direct sheet plant	11	Shares of €454	100	50
Hoogovens Court Roll Surface Technologies VOF	Joint Operation	Processing chrome deposit on rolls	4	-	-	50
Laura Metaal Holding B.V.	Joint Venture	Trading and processing of non-prime metal	103	Shares of €454	5,600	49
Wupperman Staal Nederland B.V.	Associate	Purchase, process, refine and sale of steel products and other metal products	249	Shares of €1,000	8,000	30
Norway						
Norsk Stal Tynnplater AS	Joint Venture	Processing of strip and long products	45	Shares of NOK1,000	26,500	50

34. Events after the reporting period

There are no events to report.

35. Ultimate and immediate parent company

Tata Steel Netherlands Holdings B.V. is the company's immediate parent company, which is incorporated and registered in the Netherlands.

Tata Steel Limited, a company incorporated in India, is the ultimate parent company and controlling party.

Copies of the Report & Accounts for TSL may be obtained from its registered office at Bombay House, 24 Homi Mody Street, Mumbai, 400 001.

Parent company income statement

For the financial period ended 31 March

	2021 €m	2020 €m
Loss group companies excluding parent	**(179)**	(104)
Other income and charges, after taxation	**40**	(21)
Net loss after taxation	**(139)**	(125)

Parent company balance sheet

As at 31 March Before appropriation of the result for the year	Note	2021 €m	2020 €m
Non-current assets			
Financial non-current assets	1	**2,580**	**2,610**
Loans to group companies	1	**238**	**362**
		2,818	**2,972**
Current assets			
Receivables	2	**77**	**239**
Current tax assets	3	**2**	**19**
Cash and short-term deposits	4	**88**	**-**
		167	**258**
TOTAL ASSETS		**2,985**	**3,230**
Current liabilities			
Borrowings	5	**(384)**	**(492)**
Other payables	6	**(51)**	**(74)**
Provisions	7 `	**(2)**	**(2)**
		(437)	**(568)**
TOTAL LIABILITIES		**(437)**	**(568)**
NET ASSETS		**2,548**	**2,662**
Equity			
Called-up share capital	8	**388**	**388**
Share premium account	8	**17**	**17**
Legal Reserves	8	**32**	**10**
Other Reserves	8	**2,250**	**2,372**
Result for the year	8	**(139)**	**(125)**
Equity attributable to owners of the Company		**2,548**	**2,662**

Parent company 2021 accounts

Introduction

The accounts of the parent company included in this section are prepared in accordance with Part 9 of Book 2 of DCC.

Art. 2:362 part 8 DCC, allows companies that apply IFRS as adopted by the European Union in their consolidated accounts to use the same measurement principles in their parent company accounts. The Company has decided to use this provision from 1 April 2015 onwards. The accounting policies are described in Presentation of consolidated accounts and accounting policies.

Presentation of parent company accounts and accounting policies

The parent company statement of income has been prepared in accordance with Art. 2:402 DCC, which allows a simplified Statement of income in the Company financial statements in the event that a comprehensive Statement of income is included in the consolidated Group financial statements.

Information on the use of financial instruments is provided in Note 20 of the consolidated report and accounts.

Additional information
For 'Additional information' within the meaning of Art. 2:392 DCC, please refer to section D, Other Information and section E. of this Annual Report, Independent auditor's report.

Notes to the parent company accounts

1. Financial non-current assets

	Investments in group companies €m	Loans to own group companies €m	**Total €m**
Balance sheet value at 1 April 2020	2,610	362	**2,972**
Movements in 2020/21:			
Loss group companies	(179)	-	**(179)**
Other comprehensive income	25	1	**26**
Additions	124	-	**124**
Loan redemptions	-	(125)	**(125)**
At 31 March 2021	2,580	238	**2,818**

Investments in group companies are accounted for using the equity method. Goodwill paid upon the acquisition of investments in group companies is included in the net equity value of the investment and is not separately shown on the face of the balance sheet.

The long-term loans to group companies also include loans, which although formally in the short-term category, are of a long-term economic nature. The list of group companies is presented in Note 33 of the consolidated accounts.

Additions during 2021 include capital injection in Staalverwerking en Handel B.V. of € 108m.

Loan redemptions during 2021 include settlement in kind from Tata Steel Nederland Tubes BV of €40m and repayment of loans from Tata Steel Germany GmbH of €30m.

2. Receivables

	2021 €m	2020 €m
Amounts owed by group companies	**7**	43
Interest receivable from group companies	**1**	2
Derivative financial instruments	**34**	35
Other debtors	**3**	3
Loans to other Tata Steel companies	**32**	156
	77	239

Derivative financial instruments comprise forward foreign currency contracts only.

The Company has received from TS Global Holdings Pte Ltd guarantees of € 19m for loans it holds to other Tata Steel companies.

3. Current tax assets

	2021 €m	2020 €m
Dutch corporation tax assets	**2**	19
	2	19

4. Cash and short-term deposits

	2021 €m	2020 €m
Cash at bank and in hand	**88**	-
	88	-

5. Borrowings

	2021 €m	2020 €m
Borrowings		
Borrowings from own group companies	**348**	360
Bank and other loans	**36**	132
	384	492

The borrowings from TSN group companies bear interest rates based on EURO Libor or official local rates. These rates are fixed for periods up to six months. The weighted average interest rate on short-term borrowings from other Tata Steel companies was 0.1% (2020: 0.1%).

6. Other payables

	2021 €m	2020 €m
Amounts owed to group companies	**3**	33
Derivative financial instruments	**38**	36
Other payables	**10**	5
	51	74

Derivative financial instruments comprise forward foreign currency contracts only.

7. Provisions

	2021 €m	2020 €m
Environmental Provision	**2**	2
Total Provisions	**2**	2

The environmental provision relates to cleaning costs of the Demka wharf.

8. Capital and reserves

	Called-up share capital €m	Share premium account €m	Legal reserve €m	Retained earnings €m	**Total** **€m**
Balance as at 1 April 2019	388	17	27	2,382	2,814
Loss after taxation	-	-	-	(125)	(125)
Actuarial losses	-	-	-	(10)	(10)
Translation reserve	-	-	1	-	1
Hedging reserve	-	-	(18)	-	(18)
Balance as at 31 March 2020	388	17	10	2,247	2,662
Loss after taxation	-	-	-	(139)	(139)
Actuarial losses	-	-	-	3	3
Translation reserve	-	-	(2)	-	(2)
Hedging reserve	-	-	24	-	24
Balance as at 31 March 2021	388	17	32	2,111	2,548

The authorised share capital of the Company at 31 March 2021 amounts to €1,300,000,000 (31 March 2020: €1,300,000,000) and consists of 130,000,000 Ordinary shares of €10.00 each.

Both at 31 March 2021 and 31 March 2019 38,760,710 Ordinary shares were in issue to a nominal value of €387,607,100. All shares in issue have been fully paid up. All the outstanding Ordinary shares were held by TSNH.

Legal reserves include the cash flow hedge reserve of €20m (2020: €(4)m) and the translation reserve of €12m (2020: €14m).

9. Contingent liabilities

	2021	2020
	€m	€m
Guarantees and securities on behalf of group companies	**114**	97

Tata Steel Nederland BV has provided a declaration of liability, as referred to in Article 403, Book 2, of the Dutch Civil Code, for the debts of its subsidiaries Tata Steel Nederland Technology BV, Tata Steel Nederland Services BV.

As of 1 January 2008 Tata Steel Nederland BV and most of its Dutch subsidiaries are part of the fiscal entity “Tata Steel Netherlands Holdings BV”, which is the ultimate parent within the fiscal entity. Under the Dutch Collection of State Taxes Act, the company and its fellow fiscal unity members are jointly and severally liable for any taxes payable by the group.

The Company has provided letters of support to, Tata Steel France Bâtiment et Systèmes SAS, Tata Steel France Holdings SAS, Tata Steel Germany GmbH, Unitol SAS, Degels GmbH and Naantali Steel Service Centre OY to enable these companies to continue their operations until the approbation by the shareholder of the financial statements for the year ending 31 March 2022, and for Tata Steel Germany GmbH for the year ending 31 March 2023.

10. Other

No employees are employed by the Company, unchanged from the previous reporting period.

Regarding the statement of auditing fees Tata Steel Nederland BV applies the exemption as referred to in Art. 382a Part 3, Book 2 of the Dutch Civil Code.

Further notes to and signing of the annual accounts

Group and affiliated companies and other capital interests
A list forming part of the Annual Accounts with names and other particulars of companies in which Tata Steel Nederland BV directly or via group companies participates or holds capital interests in other ways has been filed with the Trade Register in Amsterdam.

Remuneration of and loans to members of the Board of Management and of the Supervisory Board

	2021 **€**	2020 €
The total employment costs of the Board of Management of Tata Steel Nederland BV were:		
Short term employee benefits	**870,148**	1,390,866
Long term employment benefits	**-**	252,218
Post-employment benefits	**154,760**	212,167
Termination benefits	**1,954,084**	-
Total emoluments of current and former members	**2,978,992**	1,855,251

The termination benefits have been agreed by the shareholder of TSN and exclude an accrual of €642,117 for estimated additional wage tax payable by the Company in accordance with Dutch tax laws.

Employment costs relate to all activities within the Group of the members of the Board of Management.

There were no loans outstanding to members of the Board of Management as at 31 March 2021 or 31 March 2020. An amount of €nil was repaid in the 12 months to 31 March 2021 (12 months to 31 March 2020: €nil).

The Annual General Meeting of Shareholders determines the remuneration of the members of the Supervisory Board. This was last done in 2017.

	2021 **€**	2020 €
Remuneration of current and former members of the Supervisory Board*	**185,500**	185,500

* Borne by the Company and its subsidiary or group companies

The members of the Supervisory Board do not own any securities in the Company's capital or rights thereto.

Appropriation of the result for the financial year 2021
We propose to deduct the loss of €(139)m over the financial year 2021 from the Retained Earnings.

During the year ended 31 March 2021 no dividend was paid.

Signing of the Annual Accounts
The 2021 Annual Accounts of Tata Steel Nederland BV have been signed by all the members of the Board of Management and by all the members of the Supervisory Board.

Board of Management

J. van den Berg, Chairman
J.E. van Dort

Supervisory Board

P.M.M. Blauwhoff, Chairman
M.J.L. Jonkhart
L.M.T. Boeren
H. Adam

IJmuiden, 28 June 2021

PricewaterhouseCoopers Accountants N.V.
For identification purposes only

D. Other information

Independent Auditor’s Report
Reference is made to the Independent Auditor’s Report as included hereinafter.

Appropriation of result according to Articles of Association
Article 36, of the Articles of Association stipulates that, the profit available for distribution is at the disposal of the General Meeting of Shareholders.

E. Independent auditor's report

Sensitivity: general

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