

2022 Financial Statements

TNO innovation
for life

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Consolidated balance sheet as of 31 December 2022

(in thousands of euros)

after profit appropriation		31-12-2022		31-12-2021	
Fixed assets					
Intangible assets	1	2,470		2,941	
Property, plant and equipment	2	233,392		219,907	
Financial assets	3	16,857		14,400	
		252,719		237,248	
Current assets					
Inventories		243		276	
Receivables	4	174,932		158,222	
Cash and cash equivalents	5	352,176		373,612	
		527,351		532,110	
Total		780,070		769,358	

		31-12-2022		31-12-2021	
Group equity					
General reserve	6	329,526		327,156	
Statutory reserve	7	6,198		5,326	
Special reserves	8	39,073		41,822	
		374,797		374,304	
Provisions					
	9	15,087		14,747	
Long-term liabilities					
	10	45,896		29,199	
Current liabilities					
	11	344,290		351,108	
Total		780,070		769,358	

Consolidated income statement 2022

(in thousands of euros)

		2022		2021	
Revenue	12	590,704		559,905	
Other operating income	13	17,327		12,580	
Total operating income		608,031		572,485	
Direct project costs	14	-72,474		-65,924	
Personnel expenses	15	-392,617		-362,413	
Amortisation		-471		-470	
Depreciation	16	-23,302		-24,230	
Impairment losses on property, plant and equipment	16	-1,113		0	
Other operating expenses	17	-120,314		-93,901	
Total operating expenses		-610,291		-546,938	
Operating profit (loss)		-2,260		25,547	
Finance income and expenses	18	377		-1,094	
Profit (loss) from ordinary activities before tax		-1,883		24,453	
Corporation tax	19	1,080		-5,690	
Share of profit (loss) of participating interests	20	1,296		26,684	
Profit (loss) from ordinary activities after tax		493		45,447	
Minority interest		-		-	
Net profit (loss)		493		45,447	

	2022		2021	
Profit appropriation:				
Net profit (loss)		493		45,447
Addition to:				
- statutory reserve	-		-	
- special reserve for construction of new defence buildings	-6,915		-8,364	
		-6,915		-8,364
Withdrawal from:				
- statutory reserve	-872		12,667	
- special reserve for construction of new defence buildings	9,664		4,428	
		8,792		17,095
Profit (loss) after changes in special reserves		2,370		54,178
Change in general reserve		-2,370		-54,178
		-		-

Consolidated cash flow statement

(in thousands of euros)

	2022	2021
Operating profit (loss)	-2,260	25,547
Amortisation	471	470
Depreciation	24,415	24,230
Gain (loss) on disposal of fixed assets	5,926	-
Change in provisions	340	1,050
Change in working capital, excl. cash and cash equivalents	12,700	567
Cash flow from business operations	41,592	51,864
Interest received	212	462
Dividends received	750	-
Interest paid	-1,550	-1,751
Corporation tax	-5,874	-1,893
Cash flow from operating activities	35,130	48,682
Investments in property, plant and equipment	-51,974	-44,444
Investments in financial assets	-2,436	-1,339
Disposals of property, plant and equipment	-1,969	277
Disposal of participating interests	93	33,728
Repayments received	150	613
Cash flow from investing activities	-56,136	-11,165
Loans drawn	-	1,457
Repayments on loans	450	-200
Cash flow from financing activities	-450	1,257
Cash flow for financial year	-21,456	38,774
Cash and cash equivalents as of 1 January	373,612	334,828
Cash flow for financial year	-21,456	38,774
Exchange differences	20	10
Cash and cash equivalents as of 31 December	352,176	373,612

Statement of comprehensive income 2022

(in thousands of euros)

	2022	2021
Statement of comprehensive income		
Consolidated net profit (loss) after tax	493	45,447
Comprehensive income	493	45,447

Notes to the 2022 consolidated financial statements

Accounting policies

1.1 General

TNO connects people and knowledge to create innovations which will strengthen the competitive ability of industry and promote the sustainable well-being of society.

Name: Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek TNO ('TNO').

Legal form: public corporate body with statutory task.

Chamber of Commerce no.: 27376655

TNO has its registered office in Delft, the Netherlands.

Reporting period

These financial statements have been prepared for a reporting period of one calendar year.

Basis of preparation

TNO applies the guidelines for the preparation of the financial statements of TNO, as set out in the TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science.

The TNO Guidelines for Financial Reporting are based on the statutory provisions of Part 9, Book 2 of the Dutch Civil Code. A supplementary order issued by the Ministry of Education, Culture and Science by means of a letter dated 21 February 2014 with reference OWB/FO/2004/8195 exempts TNO from the provisions of Dutch Accounting Standard 271 'Employee benefits'. Specifically, the provisions relating to pensions are declared not applicable. TNO does form an obligation for holiday pay and holidays, as well as a provision for jubilee benefits.

The accounting policies that are applied for the valuation of assets and liabilities and the determination of profits or losses are based on the historical cost convention. For the implementation of the Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (Wet normering bezoldiging topfunctionarissen in de (semi) publieke sector (WNT)), TNO has complied with the policy rules on the application of this Act, which set the standards for the preparation of these financial statements.

Comparative figures

In these financial statements, the balance of all projects in progress is no longer presented as a single total in the balance sheet (Dutch Accounting Standard RJ221.409). The balance of a project in progress, insofar as it shows a debit balance (credit balance), is treated as an asset (liability). Where necessary, the comparative figures for 2021 have been reclassified to improve comparability with the figures for 2022. These financial statements have been prepared based on the going concern assumption.

1.2 Accounting policies

Unless stated otherwise, assets and liabilities are stated at historical cost.

An asset is recognised in the balance sheet when it is probable that the future economic benefits associated with the asset will flow to TNO and the cost of the asset can be measured reliably. A liability is recognised in the balance sheet when it is probable that its settlement will result in an outflow of resources embodying economic benefits and the amount at which the settlement will take place can be measured reliably.

An asset or liability is derecognised from the balance sheet when a transaction results in the transfer of all or substantially all future economic benefits and all or substantially all risks associated with an asset or a liability to a third party. Furthermore, assets and liabilities are derecognised from the date on which they no longer meet the criteria regarding the probability of the future economic benefits or the reliability of their measurement.

Income is recognised in the income statement when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. Expenses are recognised when a decrease in future economic benefits related to a decrease of an asset or an increase of a liability has arisen that can be measured reliably.

Expenses are allocated to the period to which they relate.

The financial statements are presented in euros, TNO's functional currency. All financial information in euros has been rounded to the nearest thousand.

Notes to the 2022 consolidated financial statements

1.3 Consolidation principles

The consolidated financial statements include the financial data of TNO, its group companies and other legal entities over which TNO can exercise control or which are under its centralised management. Group companies are participating interests in which the company has a majority interest, or in which decisive influence can be exercised in another way. Interests held exclusively with a view to resale are not consolidated if there was already an intention to sell the interest at the time of its acquisition, it is probable that the interest will be sold within a year and the other relevant indicators are met. These assets are recognised under current assets, as part of securities (held exclusively for resale). Newly acquired participating interests are consolidated from the date on which significant influence can be exercised over their business and financial policy.

The items in the consolidated financial statements are prepared in accordance with the group's uniform accounting policies. Participating interests that have been sold are consolidated up to the date on which significant influence can be no longer exercised over their business and financial policy.

In preparing the consolidated financial statements, intra-group shareholdings, debts, receivables and transactions are eliminated. The group companies are consolidated in full and the minority interest is disclosed separately.

Where losses attributable to the minority interest exceed the minority interest in the equity of the consolidated company, this excess and any further losses are charged in full to the majority shareholder. The minority interest is disclosed separately as the final line item in the consolidated income statement and deducted from the group profit (loss).

A list of the consolidated group companies and non-consolidated participating interests is included in the notes to the company financial statements.

1.4 Principles for the translation of foreign currency

Foreign currency transactions

Transactions denominated in foreign currency are translated into the relevant functional currency of the group companies at the exchange rate applying on the transaction date. Monetary assets and liabilities denominated in foreign currency are translated into the functional currency on the balance sheet date at the exchange rate applying at that date. Currency translation gains and losses are taken to the income statement.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on consolidation, are translated into euros at the exchange rate applying at the reporting date. Income and expenses of foreign operations are translated into euros at the average exchange rate for the reporting period, which is a good approximation of recognition based on the exchange rate applying on the transaction date.

Translation gains and losses are taken to the foreign currency translation reserve. When a foreign operation is sold in whole or in part, the relevant amount in the reserve for translation differences is transferred to the income statement.

1.5 Financial instruments

Financial instruments include (other) receivables, cash, loans and borrowings and trade and other payables.

Financial instruments are initially recognised at fair value, which includes the share premium or discount and directly attributable transaction costs. If subsequent to initial their recognition, instruments are not measured at fair value through profit or loss, then any directly attributable transaction costs are included in the initial measurement.

Embedded financial instruments which are not separated from the host contract are recognised in accordance with the host contract.

Subsequent to initial recognition, financial instruments are measured in the manner described below.

Notes to the 2022 consolidated financial statements

Loans granted, (other) receivables, loans drawn and trade and other payables

These financial instruments are measured at amortised cost on the basis of the effective interest method.

The effect of discounting is generally insignificant for current receivables and payables with short maturities for which no explicit interest is calculated. The amortised cost of these items is therefore deemed to consist of their nominal value.

Where necessary, the value of loans granted and (other) receivables is adjusted for impairment losses.

Deferred tax assets are stated at present value.

Long-term loans drawn are stated and are initially recognised at fair value. Subsequent to initial recognition, they are measured at amortised cost.

Derivatives

Derivatives are stated at cost or lower market value, except if hedge accounting under the cost price hedge accounting model is applied.

TNO makes limited use of forward exchange transactions to hedge foreign exchange risks arising from purchasing and selling transactions. If foreign exchange contracts are concluded to hedge monetary assets and liabilities, cost price hedge accounting is applied. Hedge accounting is applied to ensure that the results recognised in the income statement as a result of the conversion of monetary items are compensated value changes of foreign exchange contracts at the spot rate on the reporting date. The difference between the spot rate of the forward exchange contract at the date of inception and its forward rate is amortised over the term of the forward exchange contract and taken to the income statement.

When cost price hedge accounting is applied, derivatives are measured at fair value upon initial recognition. Derivatives are not remeasured as long as the derivative hedges the specific risk of an expected future transaction. As soon as the expected future transaction leads to the recognition of value changes in the income statement, the gain or loss associated with the derivative is recognised in the income statement. When the hedged item relating to an expected future leads to the recognition of a non-financial asset, TNO adjusts the cost price of this asset by offsetting it against the hedging gains and losses that had not been recognised in the income statement yet.

If a derivative instrument expires or is sold, the hedging relationships are terminated. The cumulative gain or loss that has not yet been recognised in the income statement is recognised as an accrued or deferred item in the balance sheet until the hedged transactions occur. If the transactions are no longer expected to occur, the cumulative gain or loss is transferred to the income statement.

TNO documents its hedge relationships in specific hedge documentation and regularly reviews the effectiveness of the hedge relationships by establishing whether the hedges are effective and that there are no overhedges.

1.6 Intangible assets

Goodwill represents the excess of the cost of acquisition of the participating interests over TNO's interest in the net fair value of the assets acquired and the liabilities assumed from the acquiree, less accumulated amortisation, depreciation and any impairment losses. Goodwill is amortised over the expected useful life of the acquired participating interest.

The other intangible assets relate to development costs. They are capitalised insofar as they relate to projects deemed commercially feasible. The development of an intangible asset is considered to be commercially feasible if the completion of the asset is technically feasible, TNO intends to complete the asset and then to use or sell it (and there are also adequate technical, financial and other resources available to achieve this), TNO has the ability to use or sell the asset, it is probable that the asset will generate future economic benefits and the expenses incurred during the development phase can be determined reliably. Development costs are stated at production cost, less accumulated amortisation and any impairment losses. These costs mainly comprise the salary costs of the relevant employees and the cost of obtaining external expertise, including fees paid to third parties for research and development, licence rights and software programs. Upon termination of the development stage, the capitalised costs are amortised over the expected useful life of the asset, which in principle does not exceed five years, using the straight-line method. A statutory reserve is formed for the part of the capitalised development costs that has not yet been amortised.

Notes to the 2022 consolidated financial statements

1.7 Property, plant and equipment

Items of property, plant and equipment intended for TNO's own use are stated at cost of acquisition or, if they have been constructed by TNO itself, at cost of manufacture, less accumulated depreciation and any accumulated impairment losses plus any costs incurred to bring the asset to its ultimate location. No interest expenses have been included in the cost of acquisition of items of property, plant and equipment. Subsequent expenditures that meet the capitalisation criteria are recognised as part of the cost price of tangible fixed assets.

Depreciation is calculated as a percentage of the cost of acquisition according to the straight-line method on the basis of the asset's useful life. Land, assets under construction and prepayments on assets are not depreciated. When changes occur with respect to the expected depreciation method, useful life and/or residual value, such changes are accounted for as a change in estimates.

When costs are incurred due to an obligation relating to the dismantling and removal of an asset and the restoration of the site where the asset is located, and this obligation is the result of the fact that TNO has put the asset in place on the site, these restoration costs are included in the carrying amount of the asset and a provision for the same amount is recognised simultaneously. Decommissioned items of property, plant and equipment are measured at their carrying amount or lower fair value less costs to sell. Items of property, plant and equipment are derecognised following their disposal or if no future economic benefits are expected to arise from their use or disposal. The income or expense arising from the disposal is recognised in the income statement.

1.8 Financial assets

Non-consolidated participating interests in which the group exercises significant influence on the business and financial policy are valued using the equity method. In assessing whether TNO can exercise significant influence over the entity's operational and financial policy, financial instruments containing voting rights that have economic significance are taken into account. In accordance with the equity method, the participating interests are recognised in the balance sheet at the group's share of the net asset value of these entities. The following is added to the net asset value of the group's participating interests in these entities: the group's share of the profit or loss and direct changes in the equity of these entities from the date of their acquisition, measured in accordance with the accounting policies described in these financial statements, less the group's share of the dividends paid by these entities.

The group's share of the profits or losses of these entities is recognised in the income statement under 'Share or profit (loss) of participating interests'. Where TNO cannot effect the unlimited payment of dividends to TNO in respect of profits of these entities, TNO's share of these profits is added to a statutory reserve. The group's share of the direct increases and decreases in the equity of the entities in which it has a participating interest is also recognised in this statutory reserve.

Following the application of the equity method, the group determines whether it needs to recognise impairment losses for any of its participating interests. As of each balance sheet date, the group assesses whether there are objective indications that a participating interest may have been impaired. If that is the case, the group recognises an impairment loss for the amount by which the carrying amount of the participating interest exceeds its recoverable amount. This impairment loss is recognised in the income statement.

If the value of a participating interest according to the equity method has become nil, this method is no longer applied and the participating interest continues to be measured at nil as long as the circumstances do not change. To this end, any other long-term interests of the group in the entity in which it has participating interests that effectively qualify as a part of the group's net investment are also included in the measurement. A provision is recognised if and to the extent that the group guarantees the debts of the entity in which it has a participating interest or has a constructive obligation to enable the entity to pay its debts.

Any share of the entity's profit subsequently acquired is recognised only if and to the extent that the group's cumulative unrecognised share of the entity's loss has been made good.

Participating interests where no significant influence can be exercised over the entity's operational and financial policy are measured at cost of acquisition less any impairment losses. Dividends qualify as profit and are recognised under finance income and expenses.

Profits or losses on transactions with and between entities in which the group has a non-consolidated participating interest measured at net asset value are recognised proportionally. Profits or losses on transactions with and between entities in which the group has a non-consolidated participating interest measured at cost are recognised in full, except if they have in effect not been realised.

Notes to the 2022 consolidated financial statements

Loans to entities in which the group has a non-consolidated participating interest are stated at amortised cost using the effective interest method, less any impairment losses.

Dividends are accounted for in the period in which they are declared. Interest income is recognised in the period to which it relates, using the effective interest rate method. Any gains or losses are recognised under finance income and expenses.

1.9 Impairment losses

As of each balance sheet date, the group assesses whether a non-financial asset or a group of non-financial assets may have been impaired. At each balance sheet date, the group assesses whether there are indications that a fixed asset may have been impaired. If there are such indications, the recoverable amount of the asset is determined. If it is not possible to determine the recoverable amount of the individual asset, the recoverable amount of the cash-generating unit to which the asset belongs is determined. An impairment occurs when the carrying amount of an asset exceeds its recoverable amount; the recoverable amount is the highest of the fair value and the value in use. An impairment loss is accounted for by recognising it directly in the income statement as an expense and simultaneously reducing the carrying amount of the relevant asset.

The asset's fair value less costs to sell is determined initially on the basis of a binding sales agreement. If there is no such agreement but a similar asset is traded in an active market, the fair value less costs to sell is determined based on the market price in this active market, which is usually the current bid price. If there is no such active market, the fair value less costs to sell is determined based on generally accepted valuation models. The results of these models are verified on the basis of a multiple of the profit, quoted prices of listed companies and other available fair value indicators. The costs to be deducted in determining the fair value less costs to sell are based on the estimated costs that are directly attributable to the sale or which are necessary to realise the sale.

To determine the value in use, the future net cash flows that would be derived from the continued use of the asset or cash-generating unit are estimated. These cash flows are then discounted using a pre-tax discount rate that reflects the time value of money on the basis of both the market expectations and the specific risks for the asset. The discount rate does not reflect any risks which have already been taken into account in determining the future cash flows.

As of each balance sheet date, the group assesses whether there are indications that an impairment loss recognised previously for a fixed asset may no longer exist or may have decreased. If there are such indications, the recoverable amount of the asset or the cash-generating unit to which the asset belongs is determined. A previously recognised impairment loss is only reversed if there has been a change in the estimates used to determine the recoverable amount since the last impairment loss was recognised.

If it is determined that a previously recognised impairment loss no longer exists or has decreased, the increased carrying amount of the relevant asset attributable to the reversal of the impairment loss will not exceed the carrying amount that would have been determined if no impairment loss had been recognised for the asset. An impairment loss recognised for goodwill is not reversed.

1.10 Inventories

Raw materials and consumables are stated at their cost of acquisition or lower net realisable value. The valuation of the inventories takes into account any impairment losses that may have arisen as of the balance sheet date.

1.11 Projects in progress

Projects in progress concern projects carried out under contracts. Included in the valuation of projects in progress are the costs that relate directly to the relevant contract (for example, personnel costs for employees whose activities relate directly to the contract and costs of raw materials and consumables), the costs that are attributable to contract activities in general and can be allocated to the relevant contract, and other costs chargeable to the client under the terms of the contract. Expenditures related to project costs that will lead to the completion of required deliverables after the balance sheet date are capitalised if it is probable that they will lead to revenue in a subsequent period. Where necessary, a provision for expected losses is deducted from projects in progress. Amounts billed in advance are deducted from projects in progress.

1.12 Receivables

The principles applied for the valuation of receivables are described under the heading 'Financial instruments'.

Notes to the 2022 consolidated financial statements

1.13 Cash and cash equivalents

Cash and cash equivalents are stated at nominal value. Where cash and cash equivalents are not at TNO's free disposal, this is reflected in their valuation.

Cash and cash equivalents denominated in foreign currency are translated at the balance sheet into the relevant functional currency at the exchange rate applying at that date. For further information, see the accounting principles for the costing of foreign currency transactions.

1.14 Equity

Financial instruments that qualify as equity instruments by virtue of their economic substance are presented under equity. Financial instruments that qualify as financial liabilities by virtue of their economic substance are presented under liabilities. Gains, losses, income and expenses with respect to these financial instruments are recognised in the income statement as finance income or expenses.

Statutory reserves

The statutory reserve concerns intangible assets and non-distributable profits from participating interests in group companies measured at net asset value.

Special reserves

In accordance with Section 22 of the TNO Act and Sections 4 and 5 of the TNO Guidelines for Financial Reporting, special reserves may be formed to allow for future expenditures or costs, or to cover economic and technical risks. Withdrawals are charged to the special reserves as part of the appropriation of the profit (loss) for the year, provided they are in accordance with the special purposes of these reserves.

The special reserve for 'civil operating risks' is formed to cover economic and technical risks. Until the maximum amount of this special reserve has been reached, TNO's Executive Board annually adds a percentage of the funding and contracts from both the government and third parties to the reserve as part of the appropriation of the profit (loss) for the year. A maximum amount of € 9.1 million was agreed with the government.

The special reserve for the construction of new defence buildings related to defence research has been formed to cover future investments in renovation and/or new-build projects. Additions to and withdrawals from this reserve are made annually as part of the appropriation of the profit (loss) for the year on the basis of specific agreements with the Council for Defence Research.

1.15 Minority interest

The minority interest concerns the minority interest of third parties in entities in which TNO has a consolidated participating interest measured at net asset value. The minority interest is measured in accordance with TNO's accounting policies.

1.16 Provisions

A provision is recognised in the balance sheet when:

- TNO has a present legal or constructive obligation as a result of a past event; and
- the amount can be estimated reliably; and
- if it is probable that an outflow of economic benefits will be required to settle the obligation.

Unless stated otherwise, provisions are stated at present value, which is determined by using the relevant discount rate that reflects the current market interest rate.

The provision for employee and post-employment benefits has been formed to cover current benefits and agreed future benefits payable to former and current employees of TNO under TNO's terms and conditions of their employment. The portion of the provision relating to current pension benefits is based on actuarial calculations.

The jubilee provision is a provision for future jubilee benefits. The provision concerns the present value of the jubilee benefits to be paid out in the future. The provision is based on promises made, the likelihood of staff staying and age.

The provision for claims has been formed for potential liabilities arising from ongoing legal proceedings. The provision for restructurings has been formed to cover costs associated with ongoing or impending (partial or full) restructurings.

Notes to the 2022 consolidated financial statements

The provision for redundancies has been formed to cover the expected costs associated with the planned termination of employment contracts with employees, other than in the context of restructurings. The other provisions have been formed mainly to cover the expected costs of onerous tenancy contracts.

The most important estimated items relate to the restructuring provision, the provision for redundancies, claims and the other provisions

1.17 Employee Benefits/Pensions

TNO has a number of pension schemes. The most significant pension scheme is administered by Stichting Pensioenfonds TNO and qualifies as a defined benefit scheme.

An order issued by the Ministry of Education, Culture and Science exempts TNO from the provisions of Dutch Accounting Standard 271 'Employee benefits'. The basic principle is that the pension expense to be recognised in the reporting period is equal to the pension contributions payable to the pension fund for the period. To the extent that the payable contributions have not been paid as of the balance sheet date, a liability is recognised. If as of the balance sheet date, the contributions already paid exceed the contributions payable, an asset is recognised under 'Prepayments and accrued income' to account for any refund by the pension fund or settlement with future pension contributions payable.

In addition, a provision is recognised as of the balance sheet date for existing additional obligations towards the pension fund and the employees if it is probable that there will be an outflow of resources embodying economic benefits to settle the obligations and the amount of the obligations can be estimated. The existence or non-existence of additional obligations is assessed on the basis of the administration agreement with pension the pension fund, the pension agreement with the employees and other (explicit or implicit) commitments made to employees.

The provision is stated at the best estimate of the present value of the amounts expected to be required to settle the obligations at the balance sheet date.

1.18 Long-term liabilities

Resources made available by the government or third parties to compensate TNO for the investment in an asset are recognised as a liability on the balance sheet and systematically credited to the income statement during the useful life of the asset.

1.19 Current liabilities

The valuation of current liabilities is explained in the section on financial instruments.

1.20 Revenue recognition

Revenue is defined as the total of:

- contract revenue; and
- government funding.

Contract revenue comprises the amounts invoiced for work performed, less any value added tax and changes in projects in progress. Revenue is recognised for each separate performance obligation. In the event of multiple performance obligations in a contract, the total transaction price is allocated to the performance obligations in proportion to the value of the performance obligations. TNO concludes that commitments in contracts together form a performance obligation. The reason for this is that TNO has established that clients cannot independently utilise the benefits of such commitments. Revenue from contracts is recognised in the agreed period in proportion to the performances delivered. Because there is a steady flow of projects that are completed at regular intervals throughout the year, and most are completed within one year, the profits on projects in progress are recognised upon the completion of the projects.

The government provides funding to support the demand-driven programme research for Top Sectors and societal transition themes. These funds are recognised as revenue in proportion to the stage of completion of the relevant work. Direct costs are defined as the tangible costs (including costs of outsourced work) that are directly attributable to a project.

1.21 Government grants

Government grants are initially recognised in the balance sheet as deferred income when it is reasonably certain that they will be received and that TNO will comply with the conditions associated with the grant. Grants that compensate TNO for expenses incurred are systematically recognised in the income statement as revenue in the same period as in which the expenses are recognised.

For information on grants that compensate TNO for an investment in an asset, see under 'Long-term liabilities'.

Notes to the 2022 consolidated financial statements

1.22 Other operating income

If the result of a transaction relating to the performance of services can be reliably estimated and it is probable that revenue will be received for these services, revenue is recognised pro rata to the stage of completion of these services. Licensing revenues are recognised in the income statement in accordance with the accrual basis of accounting, in accordance with the content of the contract, if their amount is determinable and their receipt probable.

1.23 Share of profit (loss) of participating interests

The share of the profit (loss) of participating interests consists of TNO's share of the profits or losses of the entities in which it has a participating interest, determined on the basis of the group's accounting policies.

Gains or losses on transactions are not recognised in the consolidated income statement if they cannot be deemed to have been realised. The profits or losses of participating interests acquired or disposed of during the financial year are included in TNO's profit (loss) for the year from the date of acquisition or until the date of disposal, respectively.

1.24 Finance income and expenses

Interest income is recognised in the period to which it relates, taking into account the effective interest rate for the relevant asset. Interest expenses and similar expenses are recognised in the period to which they relate while factoring in the effective interest rate.

1.25 Corporation tax/deferred tax assets

TNO has been subject to corporation tax on the integrated profit (loss) since the financial year of 2016.

As of 1 January 2016, when TNO first became liable for corporation tax, the opening tax balance sheet was prepared on the basis of the applicable tax accounting policies. The opening balance sheet for tax purposes as of 1 January 2016 was adopted definitively in 2020.

TNO Tech Transfer Holding BV and TNO Affiliates Holding BV and all their Dutch subsidiaries are also subject to corporation tax.

Tax comprises the current corporation tax payable or recoverable for the reporting period and deferred corporation tax. Tax is recognised in the income statement, except it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable (recoverable) in respect of the taxable profit (tax loss) for the financial year, calculated using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

A provision for deferred tax liabilities is recognised for taxable temporary differences between the carrying amounts for financial reporting purposes and tax bases of assets and liabilities.

Deferred tax assets are recognised for deductible temporary differences, unused tax loss carryforwards and unused tax credits, provided that it is probable that taxable profits will be available in future against which they can be offset or utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred tax assets are stated at present value.

1.26 Cash flow statement

The cash flow statement is prepared using the indirect method. Cash flows in foreign currency are translated into euros using the average exchange rates for the relevant periods.

1.27 Fair value measurement

A number of accounting policies and disclosures in the financial statements of TNO require the fair value measurement of both financial and non-financial assets and liabilities. For valuation and information purposes, fair values are determined based on the following methods.

(Other) receivables

The fair value of trade and other receivables is estimated based on the present value of the future cash flows.

Derivatives

The fair value of forward exchange contracts and interest rates swaps is based on their quote market price, where available. If a quoted market price is not available, the fair value is estimated by discounting the expected cash flows to their present value using current interest rates, which include a risk premium for the relevant risks.

Notes to the 2022 consolidated financial statements

Non-derivative financial liabilities

The fair value of non-derivative financial liabilities (loans) is determined for information purposes only and is calculated based on the present value of future principal and interest payments, discounted at the market interest rate at the reporting date.

Further information about the principles of fair value measurement is provided in the notes applicable to the relevant asset or liability.

1.28 Use of estimates

The preparation of the financial statements requires that management makes judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

The estimates and the underlying assumptions are constantly assessed. Revisions of estimates are recognised in the period in which the estimate is revised and in future periods for which the revision has consequences. The estimates mainly relate to fixed assets, projects in progress, deferred tax assets and provisions (including provisions for restructurings, a provision for redundancies, claims and onerous contracts).

1.29 Related parties

Transactions with related parties occur when a relationship exists between TNO, its participating interests and their directors and key management personnel. As part of its ordinary activities, TNO provides and receives services to and from various related parties in which TNO has an interest of 50% or less. These transactions are generally conducted at arm's length, i.e. under terms and conditions comparable to those applying to third parties with whom no relationship exists.

Notes to the consolidated balance sheet as of 31 December 2022

(in thousands of euros)

1 Intangible assets

Changes in intangible assets in 2022:

	Goodwill
Balance at 31/12/2021	
Cost of acquisition	4,705
Accumulated depreciation and impairment	-1,764
Carrying amount	2,941
Change in carrying amount	
Amortisation	-471
	-471
Balance at 31/12/2022	
Cost of acquisition	4,705
Accumulated amortisation and impairment	-2,235
Carrying amount	2,470

On 1 April 2018, TNO took over the energy activities of Stichting Energieonderzoek Centrum Nederland (NRG). The acquisition was measured according to the purchase accounting method. The goodwill amounted to € 4.7 million and is amortised over a period of 10 years.

As of 31 December 2022, there was no reason to recognise an impairment loss.

Notes to the consolidated balance sheet as of 31 December 2022

2 Property, plant and equipment

Changes in property, plant and equipment in 2022:

	Land and buildings	Plant and equipment	Other operating assets	Fixtures and fittings	Assets under construction and development	Property, plant and equipment not used in operations	Total
Balance at 31/12/2021							
Cost of acquisition	142,527	147,110	139,883	9,203	54,555	32,083	525,361
Accumulated depreciation and impairment	-87,795	-89,626	-98,693	-4,646	-	-24,694	-305,454
Carrying amount	54,732	57,484	41,190	4,557	54,555	7,389	219,907
Change in carrying amount							
Investments	-	331	18,268	1,144	-	-	19,743
Impact consolidations/deconsolidations	-1,700	-	-	-	-	-	-1,700
Disposals	-2,298	-76	-1,536	-47	-	-	-3,957
Impairment losses	-89	-729	-295	-	-	-	-1,113
Depreciation	-1,771	-10,162	-18,173	-1,077	-	-1,080	-32,263
Assets under construction and development recognised in financial year	-	20,624	29,916	1,183	-52,185	462	-
Disposal of assets under construction	-	-	-	-	-3,988	-	-3,988
Assets under construction, new investments in 2022	-	-	-	-	36,763	-	36,763
	-5,858	9,988	28,180	1,203	-19,410	-618	13,485
Balance at 31/12/2022							
Cost of acquisition	112,554	151,516	174,169	11,112	35,145	17,263	501,759
Accumulated depreciation and impairment	-63,678	-81,815	-104,799	-5,352	-	-12,723	-268,367
Carrying amount	48,876	69,701	69,370	5,760	35,145	4,540	233,392

The depreciation expense recognised in the income statement also includes the release from the investment grants equalisation account.

Of the carrying amount of property, plant and equipment as of 31 December 2022, € 37.4 million (2021: € 30.6 million) concerns land and buildings and plant and equipment of which TNO is the sole beneficial owner. This relates to investments in rented premises.

Notes to the consolidated balance sheet as at 31 December 2022

Applied depreciation periods in years	2022	2021
Land	nil	nil
Buildings	40	40
Plant and equipment	15	15
Renovations	4-15	4-15
Computer hardware	3-5	3-5
Other operating assets	5	5
Fixtures and fittings	10	10

3 Financial assets

	Non-consolidated participating interests		Deferred tax assets	Total
	Share in equity	Loans		
Balance at 31/12/2021	8,393	507	5,500	14,400
Changes:				
Investments and loans granted	1,102	1,334	-	2,436
Disposals and repayments	-129	-150	-	-279
Value changes	-	2	-	2
Share of profit (loss) of participating interests	1,148	-	-	1,148
Movement in loans	694	-694	-	-
Dividends	-750	-	-	-750
Change in deferred tax assets	-	-	-100	-100
Balance at 31/12/2022	10,458	999	5,400	16,857

A list of all direct and indirect participating interests of TNO is included in the notes to the company financial statements.

Deferred tax assets

	2022	2021
Balance as of 1 January	5,500	4,700
Change in tax deviating measurements	-100	800
Balance as of 31 December	5,400	5,500

Deferred tax assets are stated at present value. For the present value calculation, an interest rate of 3.5% is used. The nominal value of deferred tax assets is € 9.5 million (2021: € 10.9 million).

The present value of nominal deferred tax assets is € 6.3 million (2021: € 9.1 million). Of the deferred tax assets, € 4.7 million is more than one year old (2021: € 5.2 million). Due to a limited profit target and insufficient security, there is a possibility that not all tax positions can be realised. The measurement of the deferred tax asset as of 31 December 2022 was reviewed and set at € 5.4 million (2021: € 5.5 million).

4 Receivables

	2022	2021
Contract receivables	36,910	35,118
Projects in progress	114,637	104,703
Other receivables	11,140	10,319
Prepayments and accrued income	12,245	8,082
Total	174,932	158,222

Of the other receivables, € 0.5 million has a term to maturity of more than one year (2021: € 1.0 million). Of the prepayments and accrued income, € 1.7 million has a term to maturity of more than one year (2021: € 1.0 million).

Notes to the consolidated balance sheet as of 31 December 2022

Projects in progress

	31-12-2022	31-12-2021
Accumulated costs less provisions for losses and risks	192,672	188,141
Debit: Cumulative declared instalments	-260,685	-254,080
Total projects in progress	-68,013	-65,939
Of which recognised under current receivables	114,637	104,703
Of which recognised under current liabilities	182,650	170,642

The 'Projects in progress' item includes a provision for losses and risks of € 5.1 million (2021: € 9.8 million).

5 Cash and cash equivalents

The balance of cash and cash equivalents as of year-end 2022 exceeds the special reserve for the construction of new defence buildings (see note 8).

6 General reserve

	2022	2021
Balance as of 1 January	327,156	272,978
Profit appropriation	2,370	54,178
Balance as of 31 December	329,526	327,156

7 Statutory reserve

	2022	2021
Balance as of 1 January	5,326	17,993
Change	872	-12,667
Balance as of 31 December	6,198	5,326

The statutory reserve concerns non-distributable profits from participating interests measured at net asset value.

8 Special reserves

	Balance at 31-12-2021	Withdrawn in 2022	Added in 2022	Balance at 31-12-2022
Civil operating risks	9,075	-	-	9,075
Construction of new defence buildings	32,747	9,664	6,915	29,998
Total	41,822	9,664	6,915	39,073

9 Provisions

	Balance at 31-12-2021	Withdrawn in 2022	Added in 2022	Release in 2022	Balance at 31-12-2022
Employee and post-employment benefits	447	57	28	-	418
Jubilee provision	3,132	320	272	-	3,084
Claims	915	115	-	-	800
Restructurings	69	652	2,086	-	1,503
Redundancies	405	289	184	42	258
Other	9,779	1,749	1,560	566	9,024
Total	14,747	3,182	4,130	608	15,087

The 'Other provisions' item includes an amount of € 5.1 million for onerous contracts (2021: € 9.5 million).

Of the provisions, approximately € 10.7 million is of a long-term nature (2021: € 11.4 million).

Notes to the consolidated balance sheet as of 31 December 2022

10 Long-term liabilities

	31-12-2022	31-12-2021
Investment grants equalisation account	40,946	22,571
Other loans	6,032	6,836
Present value correction interest-free loans	-1,082	-208
Total	45,896	29,199

Investment grants equalisation account

	2022	2021
Balance as of 1 January	22,571	12,735
Grants awarded	27,336	14,256
	49,907	26,991
Release added to profit (loss) for the year	-8,961	-4,420
Balance as of 31 December	40,946	22,571

Of the investment grants equalisation account, € 9.0 million (2021: € 4.7 million) has a term to maturity of less than one year and € 5.5 million (2021: € 7.2 million) has a term to maturity of more than five years.

Other loans

	2022	2021
Balance as of 1 January	6,836	6,263
Loans drawn	-	1,457
Repayments on loans	-450	-200
Change in short-term part of the loans	-354	-684
Balance as of 31 December	6,032	6,836

Of the other loans, € 2.7 million has a term to maturity of between one and five years (2021: € 3.1 million). The remainder of the other loans, amounting to € 2.2 million, has a term to maturity of more than five years (2021: € 3.5 million). No securities have been issued. The other loans are interest-free.

11 Current liabilities

	31-12-2022	31-12-2021
Payables	12,974	6,267
Taxes and social insurance contributions	20,437	28,167
Pensions	139	109
Holiday pay	10,062	9,334
Outstanding leave entitlement	20,862	17,949
Other liabilities	44,584	54,430
Accruals and deferred income	20,139	17,633
Accrued government funding	32,443	46,577
Projects in progress	182,650	170,642
Total	344,290	351,108

The other liabilities largely relate to costs accounted for in 2022 for which the settlement will take place in 2023. These current liabilities do not bear interest.

Accruals and deferred income largely relate to advances received in respect of specific research projects.

The accruals and deferred income for 2022 include € 2.5 million (2021: € 1.0 million) of investment grants that will lead to expenditure in 2023, as well as € 17.6 million (2021: € 16.2 million) in project advances that must be transferred to third parties in 2023. Of the accruals and deferred income, € 1.0 million has a term to maturity of more than one year (2021: € 1.0 million).

TNO cannot claim back the VAT paid for non-economic activities and applies the pre-pro rata method. The reclaimed VAT charged on rental expenditures has been corrected for the years 2018 up to 2022 and included as a current liability. Elements of estimation are associated with both.

Projects in progress

The projects in progress item is explained under current receivables (see point 4).

Notes to the consolidated balance sheet as of 31 December 2022

Financial instruments

General

As part of its ordinary activities, TNO uses various financial instruments that expose TNO to market and/or credit risks. These financial instruments, as well as forward exchange contracts and interest rate swaps for hedging future transactions, cash flows and interest rate risks, are recognised in the balance sheet. TNO does not trade in these financial instruments and has in place procedures and a code of conduct to limit the amount of credit risk to which it is exposed in respect of each counterparty or market. If a counterparty defaults on payments due to TNO, any risks arising from this default are limited to the market value of the relevant instruments. The contract value or notional principal amounts of the financial instruments serve only as an indication of the extent to which such financial instruments are used, and not of the amount of the credit or market risks.

Interest rate risk

The interest rate risk is limited to any changes in the market value of the loans drawn and loans granted and cash and cash equivalents. The interest rate risk for the cash and cash equivalents concerns the risk of fluctuations in the fair value of the future cash flows of financial instruments due to changes in market interest rates. As the current cash position does not bear fixed interest at fixed rates, TNO is not exposed to interest rate risk on this position.

It is preferable for all loans to have a fixed interest rate throughout their term to maturity. Where this is not the case, the policy of TNO is to use derivative financial instruments to control (interim) interest rate fluctuations. The loans are held to maturity.

Credit risk

TNO runs a credit risk by virtue of transactions. This risk relates to the loss that may occur when a counter party remains in default. This risk is limited due to the large number and diversity of parties from which TNO's receivables are due. There is only a concentration of credit risk in terms of the geographic spread of the outstanding receivables, which is concentrated in the Netherlands. TNO has spread its risk over various banks.

Market value

The market value of most of the financial instruments recognised in the balance sheet, including loans granted (other) receivables, cash and cash equivalents and trade and other payables, approximates their carrying amount. TNO has remeasured all individual contracts by recalculating from the price at the date of inception to the price at the balance sheet date. The hedged position as of the balance sheet date and as of the date on which the hedge was entered into (€ 11.3 million and € 12.0 million respectively) is presented in the notes.

The market value of the outstanding USD forward contracts is € 11.3 million and the contract value is € 12.0 million (2021: € 4.2 and € 4.0 million respectively). At year-end 2022, there are no GBP forward contracts (2021: nil) and no JPY forward contracts (2021: € 0.5 million).

Off-balance sheet assets and liabilities

As of 31 December 2022, the total operating lease liabilities for the period from 2023 to 2027 inclusive amounted to approximately € 3.7 million (2021: € 4.8 million), of which € 1.9 million falls due in 2023 (2022: 2.1 million) and € 1.8 million (2021: € 2.7) falls due between one and five years. As of year-end 2022, the operating lease payments totalled € 2.9 million (2021: € 2.5 million).

Rental obligations totalled € 118.3 million (2021: € 99.2 million), of which € 18.8 million (2021: € 16.3 million) falls due within one year, € 47.9 million (2021: € 43.9 million) in between one and five years, and € 51.6 million (2021: € 39.0 million) in more than five years. As of year-end 2022, the rental payments totalled € 17.3 million (2021: € 14.3 million). The aforesaid amount of rental obligations of € 118.3 million does not include service costs. The total service costs are estimated by TNO at € 15.4 million.

As of 31 December 2022, investment obligations in respect of property, plant and equipment totalled € 5.2 million (2021: € 7.0 million).

The total of bank guarantees issued is € 0.2 million (2021: 0.2 million). The total credit facility and bank guarantee facility amount to € 13.3 million (2021: € 13.3 million) and € 11.0 million (2021: € 11.0 million) respectively.

Other securities and conditions for the total credit facility consist of:

- negative pledge/pari passu and cross-default clause;
- joint liability agreement security type: RC plus one party.

Notes to the consolidated balance sheet as of 31 December 2022

As of year-end 2022, the sureties furnished totalled nil (2021: nil).
TNO is currently a litigant in various legal proceedings that relate to its ordinary activities.
TNO does not expect that the total liabilities arising from these proceedings will be of material significance to its financial position.

Provisions have been recognised for all disputes and legal proceedings based on the nominal value of the expenditures that are expected to be required to settle the liabilities and losses.

12 Revenue

	2022	2021
Contract revenue	292,031	291,198
Government funding	298,673	268,707
Total	590,704	559,905

Revenue includes a negative movement in projects in progress of € 1.7 million (2020: € 21,7 million negative).

Contract Revenue

Contract revenue breaks down by category as follows:

	2022		2021	
Domestic contract revenue				
Government	108,487		108,216	
Industry	90,825		85,819	
Total domestic contract revenue		199,312		194,035
International contract revenue				
International organisations	9,278		31,228	
Other	83,441		65,935	
Total international contract revenue		92,719		97,163
Total		292,031		291,198

13 Other operating income

	2022	2021
Gain (loss) on disposals of property, plant and equipment	5,860	-117
Other income	11,467	12,697
Total	17,327	12,580

Other income includes income from licences and patents, non-project-related income and costs charged on to external parties.

14 Direct project costs

Direct costs are defined as the tangible costs (including costs of outsourced work) that are directly attributable to a project.

15 Personnel expenses

	2022	2021
Wages and salaries	264,114	243,558
Pension costs	34,446	32,213
Other social expenses	37,083	32,883
Other personnel expenses	52,851	51,876
Change in outstanding leave entitlement	2,913	1,680
Utilisation and release of provisions:		
- employee and post-employment benefits	-57	-60
- jubilee	-320	-304
- redundancies	-331	-157
- restructurings	-652	-271
	390,047	361,418
Addition to provisions:		
- employee and post-employment benefits	28	115
- jubilee	272	457
- restructurings	2,086	-
- redundancies	184	423
Total	392,617	362,413

Notes to the consolidated income statement for the year ended 31 December 2022

(in thousands of euros)

In 2022, the average number of employees totalled 3,463 FTEs, of which 4 FTEs were employed outside of the Netherlands (2021: 3,280 FTEs, of which 4 FTEs outside of the Netherlands). The remuneration, including pension contributions, of the members of TNO's Executive Board totalled € 0.8 million (2021: € 0.8 million). The remuneration of the members of TNO's Supervisory Board totalled € 0.1 million (2021: € 0.1 million).

As of 31 December 2022, the preliminary policy coverage ratio of Stichting Pensioenfonds TNO (12-month rolling average of the market value of the plan assets expressed as a percentage of the defined benefit obligation according to the accounting policies of the Dutch central bank) came to 130.0% (31 December 2021: 114.8%).

From 1 January 2022, pensions will be indexed (with retroactive effect) at 3.28%. The total of missed indexations remains 16.0%.

The social partners set the premium for 2023 at 20.34% (2022: 20.33%). This allows for an accrual rate of 1.50% (2022: 1.50%).

16 Depreciation

	2022	2021
Depreciation of:		
- buildings	1,860	3,049
- plant and equipment	10,891	10,147
- other operating assets	18,468	13,396
- fixtures and fittings	1,077	943
- property, plant and equipment not used in operations	1,080	1,115
Total	33,376	28,650
Release from:		
- investment grants equalisation account	-8,961	-4,420
Total	24,415	24,230

17 Other operating expenses

	2022	2021
Accommodation costs	50,562	43,857
Costs of materials	5,544	4,844
Use of operating assets	14,196	12,735
General administrative expenses	20,366	16,488
Outsourced work	13,600	13,124
Changes in provisions	-870	847
Other expenses	16,365	1,220
Contributions paid	551	786
Total	120,314	93,901

18 Finance income and expenses

	2022	2021
Interest income	1,726	462
Interest expenses	-1,369	-1,566
Exchange differences	20	10
Total	377	-1,094

19 Corporation tax

	2022	2021
Tax expense		
Current financial year	-1,321	7,388
Previous financial year	141	-898
Deferred tax		
Change in deferred tax assets	100	-800
Total	-1,080	5,690

Notes to the consolidated income statement for the year ended 31 December 2022

When TNO first became liable for corporation tax, the opening tax balance sheet was prepared on the basis of the applicable tax accounting policies. Deferred tax assets are recognised for differences between the tax bases and carrying amounts for financial reporting purposes of assets and liabilities. The commercial measurement is lower than the fiscal measurement, which results in a deferred tax asset of € 5.4 million (2021: € 5.5 million).

The reconciliation between the Dutch nominal tax rate and effective tax rate is as follows:

	2022	2021
Nominal tax rate in the Netherlands	25.8%	25.0%
Non-tax-deductible items and restatements for prior financial years	31.6%	-1.7%
Effective tax burden	57.4%	23.3%

20 Share of profit (loss) of participating interests

	2022	2021
Participating interests:		
- Non-consolidated participating interests	1,148	77
- Disposal of participating interests	148	26,607
Total	1,296	26,684

21 Auditor's fees

The following fees as referred to in Section 2:382a of the Dutch Civil Code were charged to TNO, its subsidiaries and other consolidated companies by Ernst & Young.

	2022	2021
Audit of the financial statements	252	237
Other audit engagements	296	231
Tax consultancy fees	-	-
Other non-audit services	88	91
Total	636	559

22 Subsequent events

There are no significant events after the balance sheet date.

Balance sheet of TNO as of 31 December 2022

(in thousands of euros)

after profit appropriation		31-12-2022	31-12-2022
Fixed assets			
Intangible assets	1	2,470	2,941
Property, plant and equipment	2	232,985	217,519
Financial assets	3	154,329	158,928
		389,784	379,388
Current assets			
Inventories		243	276
Receivables	4	168,515	152,201
Cash and cash equivalents		221,278	236,843
		390,036	389,320
Total		779,820	768,708

		31-12-2022	31-12-2022
Equity			
General reserve		329,526	327,156
Statutory reserve		6,198	5,326
Special reserves		39,073	41,822
	5	374,797	374,304
Provisions	6	15,087	14,747
Long-term liabilities	7	45,896	29,199
Current liabilities	8	344,040	350,458
Total		779,820	768,708

TNO 2022 income statement

(in thousands of euros)

		2022	2021
Domestic and international contract revenue		183,366	182,928
Contract revenue government		108,487	108,216
Market sales		291,853	291,144
Government contribution		298,673	268,707
Revenue	9	590,526	559,851
Other operating income		17,520	12,599
Total operating income		608,046	572,450
Direct project costs		-72,514	-66,029
Personnel expenses	10	-392,375	-362,198
Amortisation		-471	-470
Depreciation		-23,021	-23,947
Impairment losses on intangible assets		-	-
Impairment losses on property, plant and equipment		-1,113	-
Other operating expenses		-120,182	-93,522
Total operating expenses		-609,676	-546,166
Operating profit (loss)		-1,630	26,284
Finance income and expenses	11	439	-367
Profit (loss) from ordinary activities before tax		-1,191	25,917
Corporation tax	12	1,083	-5,740
Share of profit (loss) of participating interests		601	25,270
Net profit (loss)		493	45,447

Accounting policies

General

As regards the accounting policies, reference is made to the notes to the consolidated financial statements. This also applies to other notes, to the extent they are not included below. The TNO financial statements are the separate financial statements.

Notes to the balance sheet of TNO as of 31 December 2022

(in thousands of euros)

1 Intangible assets

Changes in intangible assets in 2022:

	Goodwill
Balance at 31/12/2021	
Cost of acquisition	4,705
Accumulated depreciation and impairment	-1,764
Carrying amount	2,941
Change in carrying amount	
Investments	-
Disposals	-
Depreciation	-471
	-471
Balance at 31/12/2022	
Cost of acquisition	4,705
Accumulated depreciation and impairment	-2,235
Carrying amount	2,470

On 1 April 2018, TNO took over the energy activities of Stichting Energieonderzoek Centrum Nederland (NRG). The acquisition was measured according to the purchase accounting method. The goodwill amounted to € 4.7 million and is amortised over a period of 10 years.

As of 31 December 2022, there was no reason to recognise an impairment loss.

Notes to the balance sheet of TNO as at 31 December 2022

2 Property, plant and equipment

Changes in property, plant and equipment in 2022:

	Land and buildings	Plant and equipment	Other operating assets	Fixtures and fittings	Assets under construction and development	Property, plant and equipment not used in operations	Total
Balance at 31/12/2021							
Cost of acquisition	140,827	146,851	136,592	9,203	54,555	32,083	520,111
Accumulated depreciation and impairment	-87,795	-89,367	-96,090	-4,646	-	-24,694	-302,592
Carrying amount	53,032	57,484	40,502	4,557	54,555	7,389	217,519
Change in carrying amount							
Investments	-	331	18,268	1,144	-	-	19,743
Disposals	-2,298	-76	-1,536	-47	-	-	-3,957
Impairment losses	-89	-729	-295	-	-	-	-1,113
Depreciation	-1,771	-10,162	-17,892	-1,077	-	-1,080	-31,982
Assets under construction and development recognised in financial year	-	20,624	29,916	1,183	-52,185	462	-
Disposal of assets under construction	-	-	-	-	-3,988	-	-3,988
Assets under construction, new investments in 2022	-	-	-	-	36,763	-	36,763
	-4,158	9,988	28,461	1,203	-19,410	-618	15,466
Balance at 31/12/2022							
Cost of acquisition	112,554	151,517	170,903	11,112	35,145	17,263	498,494
Accumulated depreciation and impairment	-63,678	-81,816	-101,940	-5,352	-	-12,723	-265,509
Carrying amount	48,876	69,701	68,963	5,760	35,145	4,540	232,985

The depreciation expense recognised in the income statement also includes the release from the investment grants equalisation account. Of the carrying amount of property, plant and equipment as of 31 December 2022, € 37.4 million (2021: € 30.6 million) concerns land and buildings and plant and equipment of which TNO is the sole beneficial owner. This relates to investments in rented premises.

Notes to the balance sheet of TNO as at 31 December 2022

3 Financial assets

	Group companies	Loans	Deferred tax assets	Total
	Share in equity			
Balance at 31/12/2021	133,245	20,183	5,500	158,928
Changes:				
Investments and loans granted	2,047	-	-	2,047
Disposals and repaid loans	-1,020	-6,127	-	-7,147
Share of profit (loss) of participating interests	601	-	-	601
Change in deferred tax assets	-	-	-100	-100
Balance at 31/12/2022	134,873	14,056	5,400	154,329

Of the loans item, € 14.1 million relates to loans to group companies (2021: € 20.1 million).

Of the loans, € 8.0 million has a term to maturity of more than one year (2021: € 18.3 million).

Deferred tax assets

	2022	2021
Balance as of 1 January	5,500	4,700
Tax deviating measurements	-100	800
Balance as of 31 December	5,400	5,500

Deferred tax assets are stated at present value. For the present value calculation, an interest rate of 3.5% is used. The nominal value of deferred tax assets is € 9.5 million (2021: € 10.9 million).

The present value of nominal deferred tax assets is € 6.3 million (2021: € 9.1 million).

Of the deferred tax assets, € 4.7 million is more than one year old (2021: € 5.2 million).

Due to a limited profit target and insufficient security, there is a possibility that not all tax positions can be realised. The measurement of the deferred tax asset as of 31 December 2022 was reviewed and set at € 5.4 million (2021: € 5.5 million).

4 Receivables

	31-12-2022	31-12-2021
Contract receivables	36,910	35,118
Receivables from group companies	58	-
Projects in progress	114,637	104,703
Other receivables	4,666	4,297
Prepayments and accrued income	12,244	8,083
Total	168,515	152,201

Of the other receivables, € 0.5 million has a term to maturity of more than one year (2021: € 1.0 million). Of the prepayments and accrued income, € 1.7 million has a term to maturity of more than one year (2021: € 1.0 million).

Projects in progress

	31-12-2022	31-12-2021
Accumulated costs less provisions for losses and risks	192,672	188,141
Debit: Cumulative declared instalments	-260,685	-254,080
Total projects in progress	-68,013	-65,939
Of which recognised under current receivables	114,637	104,703
Of which recognised under current liabilities	182,650	170,642

The 'Projects in progress' item includes a provision for losses and risks of € 5.1 million (2021: € 9.8 million).

5 Equity

For information on TNO's equity, please refer to the 'Equity' item in the notes to the consolidated financial statements.

Notes to the balance sheet of TNO as at 31 December 2022

6 Provisions

	Balance at 31-12-2021	Withdrawn in 2022	Added in 2022	Release in 2022	Balance at 31-12-2022
Employee and post-employment benefits	447	57	28	-	418
Jubilee provision	3,132	320	272	-	3,084
Claims	915	115	-	-	800
Restructurings	69	652	2,086	-	1,503
Redundancies	404	289	184	42	257
Other	9,780	1,749	1,560	566	9,025
Total	14,747	3,182	4,130	608	15,087

The 'Other provisions' item includes an amount of € 5.1 million for onerous contracts (2021: € 9.5 million).

Of the provisions, approximately € 10.7 million is of a long-term nature (2021: € 11.4 million).

7 Long-term liabilities

	31-12-2022	31-12-2021
Investment grants equalisation account	40,946	22,571
Other loans	6,032	6,836
Present value correction interest-free loans	-1,082	-208
Total	45,896	29,199

Of the investment grants equalisation account, € 9.0 million (2021: € 4.7 million) has a term to maturity of less than one year and € 5.5 million (2021: € 7.2 million) has a term to maturity of more than five years. No securities have been issued. The other loans are interest-free. Of the other loans, € 2.7 million has a term to maturity of between one and five years (2021: € 3.1 million).

The remainder of the other loans, amounting to € 2.2 million, has a term to maturity of more than five years (2021: € 3.5 million).

See the consolidated financial statements for a statement of changes of the equalisation account and other loans.

8 Current liabilities

	31-12-2022	31-12-2021
Payables	12,960	6,256
Amounts owed to group companies	-	-
Taxes and social insurance contributions	20,448	28,156
Holiday pay	10,062	9,334
Outstanding leave entitlement	20,862	17,949
Other liabilities	44,476	53,911
Accruals and deferred income	20,139	17,633
Accrued government funding	32,443	46,577
Projects in progress	182,650	170,642
Total	344,040	350,458

Of the other liabilities, € 14.5 million has a term to maturity of more than one year (2021: € 4.5 million).

These current liabilities do not bear interest. Accruals and deferred income largely relate to advances received in respect of specific research projects. Of the accruals and deferred income, € 1.0 million has a term to maturity of more than one year (2021: € 1.0 million). TNO cannot claim back the VAT paid for non-economic activities and applies the pre-pro rata method.

This method involved elements of estimation. The reclaimed VAT charged on the rental expenditure has also been corrected for the years 2018 up to 2022 and included as a current liability. Elements of estimation are associated with both.

Projects in progress

The projects in progress item is explained under current receivables (see point 4).

Notes to the 2022 TNO consolidated income statement

(in thousands of euros)

9 Revenue

	2022		2021	
Domestic contract revenue industry		90,647		87,572
Contract revenue international organisations	9,278		31,228	
International contract revenue	83,441		64,128	
Total international contract revenue		92,719		95,356
Contract revenue government		108,487		108,216
Market sales		291,853		291,144
Government contribution		298,673		268,707
Total		590,526		559,851

Revenue includes a negative movement in projects in progress of € 2.1 million (2021: € 1,7 million negative).

10 Personnel expenses

	2022		2021	
Wages and salaries		263,947		243,403
Pension costs		34,446		32,213
Other social expenses		37,064		32,856
Other personnel expenses		52,795		51,843
Change in outstanding leave entitlement		2,913		1,680
Changes in provisions		1,210		203
Total		392,375		362,198

In 2022, the average number of employees totalled 3,461 FTEs, of which 2 FTEs were employed outside of the Netherlands (2021: 3,278 FTEs, of which 2 FTEs outside of the Netherlands).

The remuneration, including pension contributions, of the members of TNO's Executive Board totalled € 0.8 million (2021: € 0.8 million).

The remuneration of the members of TNO's Supervisory Board totalled € 0.1 million (2021: € 0.1 million).

11 Finance income and expenses

	2022		2021	
Interest income		1,265		441
Interest expenses		-846		-818
Exchange differences		20		10
Total		439		-367

12 Corporation tax

	2022		2021	
Tax expense				
Current financial year		-1,324		7,388
Previous financial year		141		-848
Deferred tax				
Change in deferred tax assets		100		-800
Total		-1,083		5,740

When TNO first became liable for corporation tax, the opening tax balance sheet was prepared on the basis of the applicable tax accounting policies.

Deferred tax assets are recognised for differences between the tax bases and carrying amounts for financial reporting purposes of assets and liabilities. The commercial measurement is lower than the fiscal measurement, which results in a deferred tax asset of € 5.4 million (2021: € 5.5 million).

Notes to the 2022 TNO consolidated income statement

The reconciliation between the Dutch nominal tax rate and effective tax rate is as follows:

	2022	2021
Nominal tax rate in the Netherlands	25.8%	25.0%
Non-tax-deductible items and restatements for prior financial years	65.1%	-2.9%
Effective tax burden	90.9%	22.1%

The taxable profit for 2022 amounted to € -5.2 million. This taxable profit results in a current tax benefit of € 1.3 million (i.e. a tax rate of 25%).

13 Subsequent events

There are no significant events after the balance sheet date.

TNO 2022 remuneration standards compliance report (WNT Act)

(in euros)

The Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT) came into effect on 1 January 2013. This compliance report has been prepared based on the following regulation applicable to TNO: The general maximum remuneration under the WNT (WNT maximum).

The maximum remuneration for TNO in 2022 was € 216,000.00. This has been determined on the basis of the Reduction of Maximum Remuneration (WNT) Act (Wet verlaging bezoldigingsmaximum, WNT), which came into effect on 1 January 2015.

The applicable WNT maximum shown per person or per position is calculated in proportion to the working hours under the employment contract (and for senior officials also the period of service), with the proviso that the employment may not exceed 1.0 FTE for the purposes of this calculation.

An exception is the WNT maximum for members of the Supervisory Board: 15% of the WNT remuneration for the chair and 10% of the general WNT maximum for the other members.

Remuneration of senior officials

1. Senior management officials Details for 2022

	Dr. T.B.P.M. Tjin-A-Tsoi	Ir. M.G.L.H. Tossings	Prof. dr. P.J. Werkhoven	Drs. S.M. Swarte RC	Drs. P. de Krom
Job details	Member of the Supervisory Board (Chair)	Member of the Executive Board	Member of the Executive Board	Member of the Executive Board	Member of the Supervisory Board (Chair)
Start and end job performance in 2022	1/6 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 31/1
Employment in FTEs	1.0	1.0	1.0	1.0	1.0
Employed?	yes	yes	yes	yes	yes
Remuneration					
Remuneration plus taxable expense allowances	118,696.00	202,149.08	202,147.08	202,393.80	17,219.40
Long-term and post-employment benefits	7,933.94	13,601.04	13,601.04	13,601.04	1,114.24
Subtotal	126,629.94	215,750.12	215,748.12	215,994.84	18,333.64
Applicable individual maximum remuneration ¹	126,641.10	216,000.00	216,000.00	216,000.00	18,345.21
-/- amount paid in excess of statutory maximum that has not been refunded yet	n/a	n/a	n/a	n/a	n/a
Remuneration 2022	126,629.94	215,750.12	215,748.12	215,994.84	18,333.64
Further information about the claim for undue payment	n/a	n/a	n/a	n/a	n/a

1.The identified senior officials on the Executive Board of TNO are not employed as senior management officials at multiple institutions that fall under the WNT (under employment contracts entered into effective from 1 January 2018).

TNO 2022 remuneration standards compliance report (WNT Act)

Details for 2021

	Ir. M.G.L.H. Tossings	Prof. dr. P.J. Werkhoven	Drs. S.M. Swarte RC	Drs. P. de Krom
Job details	Member of the Executive Board	Member of the Executive Board	Member of the Executive Board	Member of the Supervisory Board (Chair)
Start and end job performance in 2021	1/1 - 31/12	1/1 - 31/12	1/5 - 31/12	1/1 - 31/12
Employment in FTEs	1.0	1.0	1.0	1.0
Employed?	yes	yes	yes	yes
Remuneration				
Remuneration plus taxable expense allowances	195,364.32	195,301.56	131,402.32	195,377.32
Long-term and post-employment benefits	13,300.80	13,300.80	8,867.20	13,300.80
Total remuneration for 2021	208,665.12	208,602.36	140,269.52	208,678.12
Applicable individual maximum remuneration	209,000.00	209,000.00	140,287.67	209,000.00
-/- amount paid in excess of statutory maximum that has not been refunded yet	n/a	n/a	n/a	n/a

TNO 2022 remuneration standards compliance report (WNT Act)

2. Supervisory Board Officials (1) Details for 2022

	Mr. P.G. de Vries	Drs. J.D. Lamse-Minderhoud RA	Prof. P.P.C.C. Verbeek	Dr. ir. P.J.M. van Laarhoven	Prof. dr. ir. drs. H. Bijl
Job details	Member of Supervisory Board (Chair)	Member of Supervisory Board	Member of Supervisory Board	Member of Supervisory Board	Member of Supervisory Board
Start and end job performance 2022	1/1 - 31/12	1/1 - 31/12	1/1 - 30/4	1/1 - 31/12	1/1 - 31/12
Remuneration					
Remuneration plus taxable expense allowances	30,396.00	19,596.00	6,433.37	19,596.00	19,596.00
Applicable individual maximum remuneration	32,400.00	21,600.00	7,101.37	21,600.00	21,600.00
-/- amount paid in excess of statutory maximum that has not been refunded yet	n/a	n/a	n/a	n/a	n/a
Total remuneration for 2022	30,396.00	19,596.00	6,433.37	19,596.00	19,596.00
Reason why the transgression is permitted or not	n/a	n/a	n/a	n/a	n/a
Further information about the claim for undue payment	n/a	n/a	n/a	n/a	n/a
Details for 2021					
Job details	Member of Supervisory Board (Chair)	Member of Supervisory Board	Member of Supervisory Board	Member of Supervisory Board	Member of Supervisory Board
Start and end job performance 2021	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12
Total remuneration for 2021	29,352.00	18,900.00	18,900.00	18,900.00	18,900.00
Applicable individual maximum remuneration	31,350.00	20,900.00	20,900.00	20,900.00	20,900.00

TNO 2022 remuneration standards compliance report (WNT Act)

2. Supervisory Board Officials (2) Details for 2022

	Ir. L. Verheij van Wijk	Ir. J.B.P. Coopmans	Prof. dr. M.P. Hekker
Job details	Member of Supervisory Board	Member of Supervisory Board	Member of Supervisory Board
Start and end job performance 2022	1/1 - 31/12	1/1 - 31/12	1/5 - 31/12
Remuneration			
Remuneration plus taxable expense allowance	19,596.00	19,596.00	13,064.00
Applicable individual maximum remuneration	21,600.00	21,600.00	14,498.63
-/- amount paid in excess of statutory maximum that has not been refunded yet	n/a	n/a	n/a
Total remuneration for 2022	19,596.00	19,596.00	13,064.00
Reason why the transgression is permitted or not	n/a	n/a	n/a
Further information about the claim for undue payment	n/a	n/a	n/a

Details for 2021

	Member of Supervisory Board	Member of Supervisory Board
Job details	Member of Supervisory Board	Member of Supervisory Board
Start and end job performance 2021	1/1 - 31/12	1/2 - 31/12
Total remuneration for 2021	18,900.00	17,325.00
Applicable individual maximum remuneration	20,900.00	19,124.93

TNO 2022 remuneration standards compliance report (WNT Act)

3. Remuneration of non-senior officials (1)

The maximum remuneration does not apply to these officials. Disclosure of their remuneration is mandatory, however.

Details for 2022

Job details	Director	Director	Senior Scientist	Senior Scientist	Director
Start and end job performance in 2022	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12	1/1 - 30/11
Employment in FTEs	1.0	1.0	0.05	0.05	0.36
Remuneration					
Remuneration plus taxable expense allowances	218,815.14	208,674.28	10,538.40	11,077.46	92,415.50
Long-term and post-employment benefits	13,601.04	13,601.04	680.04	0.00	4,533.72
Total remuneration for 2022	232,416.18	222,275.32	11,218.44	11,077.46	96,949.22
Applicable individual remuneration threshold	216,000.00	216,000.00	10,800.00	10,800.00	78,833.52
Mandatory justification for exceeding the applicable individual remuneration threshold	a	a	a	a	a

Details for 2021

Job details	Director	Director	Senior Scientist
Start and end job performance 2021	1/1 - 31/12	1/1 - 31/12	1/1 - 31/12
Employment in FTEs	1.0	1.0	0.05
Remuneration			
Remuneration plus taxable expense allowances	213,211.88	206,486.04	10,538.40
Long-term and post-employment benefits	13,300.80	13,300.80	665.04
Total remuneration for 2021	226,512.68	219,786.84	11,203.44

a. The WNT does not apply to these senior officials. Disclosure of their remuneration is mandatory, however. The remuneration threshold is exceeded due to remuneration arrangements that were agreed when these officials were appointed.

TNO 2022 remuneration standards compliance report (WNT Act)

Payments to senior officials in 2022 on account of termination of employment

Amounts x € 1	Drs. P. de Krom
Position held at termination of employment	Member of the Supervisory Board (Chair)
Employment in FTEs	1.0
Year of termination of employment	2022

Benefits on account of termination of employment

Agreed termination benefits	32,140.00
Individual WNT maximum	75,000.00

Total termination benefits awarded	32,140.00
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Of which paid in 2022	32,140.00
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Details of participating interests

As of year-end 2022, TNO had direct participating interests in the following entities

Name	Registered office	%
TNO Affiliates Holding BV	Delft	100%
– TNO Powertrain Test Services BV	Delft	100%
– TNO Singapore CLG LTD	Singapore	100%
– TNO Japan K.K. / TNO Japan Co. Ltd	Yokohama	100%
TNO Tech Transfer Holding BV	Delft	100%
– AMS Microtracer BV	Leiden	100%

The following entities are not consolidated

Name	Registered office	%
Blue Heart Energy BV	Alkmaar	8%
Solar Visuals BV	Alkmaar	32%
Innovation Industries Fund II Cooperatief UA	Amsterdam	<1%
MILENA-OLGA Joint Innovation BV	Amsterdam	50%
SHIFT Invest III Cooperatief UA	Amsterdam	2%
Sightlabs BV	Amsterdam	20%
Studio Automated Holding BV	Amsterdam	25%
VCC Deep Tech Fund Coöperatief UA	Bilthoven (Municipality of De Bilt)	5%
Cellcius BV	Breda	18%
Linksight BV	Bunnik	20%
Torwash BV	Burgerbrug (Municipality of Schagen)	25%
Holland Metrology NV	Delft	45%
Nearfield Instruments BV	Delft	13%
Orange Quantum Systems Holding BV	Delft	20%
Relement BV	Delft	50%
Solaroad BV	Delft	40%
TBQ BV	Delft	25%
Valley Optics Holding BV	Delft	17%
Aircision BV	Eindhoven	7%
AMSYSTEMS BV	Eindhoven	25%
Carbyon Holding BV	Eindhoven	7%
DeeptechXL Fund I Coöperatief UA	Eindhoven	3%
Eindhoven Engine BV	Eindhoven	33%

The following entities are not consolidated

Name	Registered office	%
HighTechXL Group BV	Eindhoven	14%
istart.nl Fund Coöperatief UA	Eindhoven	7%
Keiron Printing Technologies BV	Eindhoven	15%
Lion Volt BV	Eindhoven	33%
Lumo Fund II Coöperatief UA	Eindhoven	5%
SparkNano BV	Eindhoven	22%
TracXon BV	Eindhoven	47%
Udentity BV	Eindhoven	15%
Innovation Industries Fund Coöperatief UA	Enschede	2%
SHM Next BV	The Hague	20%
Newton Energy Solutions Holding BV	Haarlemmermeer	15%
RetinaScope BV	Naarden	20%
LeydenJar Technologies BV	Oegstgeest	2%
Asset Hub BV	Rotterdam	20%
Delta Diagnostics BV	Rotterdam	20%
Tiledmedia BV	Rotterdam	7%
Warmtebron LEAN BV	Schiedam	3%
Calosol BV	Stadskanaal	30%
Pharmaprint BV	Utrecht	20%
CollaneX Therapeutics BV	Voorhout	19%

Delft, 16 March 2023

Other information

Profit appropriation

The TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science stipulate as follows in Article 4: Reserves are formed as part of the appropriation of the profit. As part of the appropriation of the profit, special reserves may be formed or existing special reserves may be updated. The updates may be additions or withdrawals. For example, a special reserve may be formed for future expenditures or expenses as part of the appropriation of the profit (loss) for the year. Any recognition of special reserves must take place on the basis of concrete policy plans and concrete financing plans. In addition, withdrawals may be made for purposes for which the special reserves were originally recognised, such as for expenditures made in the financial year. Expenditures that qualify as costs which exclusively relate to the relevant financial year are charged to the income statement for the relevant year.

Expenditures that qualify as investments in knowledge development are capitalised.

The amortisation costs related to this investment are systematically taken to the income statement. As part of the appropriation of the profit (loss) for the year, an amount equal to the aforementioned amortisation costs or expenditures that qualify as costs in the financial year must be withdrawn from the special reserves.



Independent auditor's report

The following is an English translation of the independent auditor's report issued on March 16, 2023

To: Supervisory Board and Executive Board of Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek TNO

Opinion on the 2022 financial statements as included in the annual report

Our opinion

We have audited the financial statements for 2022 of the Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek (hereinafter 'TNO') in Delft. We believe that the financial statements included in this annual report represent the extent and composition of the assets of TNO as of 31 December 2022 and the profit (loss) for 2022 in accordance with the TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science, the additional order of 21 April 2004, reference OWB/FO/2004/8195, and the provisions of and by virtue of the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT).

The financial statements comprise:

- the consolidated and company balance sheet as of 31 December 2022;
- the consolidated and company income statement for the year ended 31 December 2022;
- the notes, comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing, the TNO 2020 Audit Protocol and the WNT 2022 audit protocol regulation. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of TNO in accordance with the Independence of Accountants in Assurance Engagements Regulation (Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO)) and other Dutch independence rules relevant to the engagement. Furthermore, we have complied with the Regulation on the Code of Conduct and Professional Practice for Auditors (Verordening gedrags- en beroepsregels accountants (VGBA)).

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Compliance with anti-cumulation provision of WNT not audited

In accordance with the WNT Auditing Protocol 2022, we did not audit the Compliance with the anti-cumulation provisions in Section 1.6a of the WNT and Section 5(1)(j) of the WNT Implementation Regulation (Uitvoeringsregeling WNT). Therefore, we did not audit whether a remuneration maximum was exceeded by a senior management official because such an official was also employed at other institutions that fall under the WNT, nor did we audit whether the required information in this respect has been fully and correctly disclosed.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information, consisting of:

- the TNO Annual Report of 2022;
- other information.

Based on the procedures we performed as described below, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains all information required in accordance with the TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science.

We have read the other information and based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we have complied with the requirements in Dutch Standard 720 and the TNO Audit Protocol. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.



The Executive Board is responsible for the preparation of the 2022 annual report and the other information in accordance with the TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science.

Description of the responsibilities with regard to the financial statements

Responsibilities of the Executive Board and Supervisory Board for the financial statements

The Executive Board is responsible for the preparation and faithful representation of the financial statements in accordance with the TNO Guidelines for Financial Reporting issued by the Ministry of Education, Culture and Science, the additional order of of 21 April 2004, reference OWB/FO/2004/8195, and the provisions of and by virtue of the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT). In this context, the Executive Board is responsible for such internal control as the Executive Board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Executive Board is responsible for assessing TNO's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Executive Board should prepare the financial statements using the going concern basis of accounting, unless the Executive Board either intends to liquidate TNO or to cease operations, or has no realistic alternative but to do so. The Executive Board should disclose events and circumstances that may cast significant doubt on TNO's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the financial reporting process of TNO.

Our responsibilities for the audit of the financial statements

Our responsibility is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not have detected all material errors or fraud during our audit.

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they may reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement, where relevant, and have maintained professional scepticism throughout the audit, in accordance with the Dutch Standards on Auditing, the TNO 2020 Audit Protocol, the WNT Auditing Protocol 2022 and the ethical requirements and independence requirements. Our audit included e.g.:

- identifying and assessing the risks of material misstatement of the financial statements, whether due to errors or fraud, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. In the event of fraud, the risk of a material misstatement not being detected is greater than in the event of errors. A case of fraud may involve conspiracy, forgery of documents, intentionally failing to document transactions, the intentional misrepresentation of facts or the violation of the internal control system;
- gaining an insight into the internal control relevant to the audit, with the aim of selecting audit activities that are appropriate in the circumstances. These activities do not serve to pass judgement on the effectiveness of TNO's internal controls;
- evaluating the appropriateness of the accounting policies used and evaluating the reasonableness of the accounting estimates made by the Executive Board and the related disclosures in the financial statements;
- concluding that the going concern assumption adopted by the Executive Board is acceptable. Also, using the audit evidence obtained to conclude if there are any events and circumstances that may cast significant doubt on TNO's ability to continue as a going concern. If we conclude there is any significant uncertainty, we are obliged in our auditor's report to focus on the relevant associated notes to the financial statements. When the explanatory notes are incorrect, we have to adjust our certificate. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or circumstances may cause the entity to cease to continue as a going concern;
- evaluating the overall presentation, structure and content of the financial statements, including the disclosures contained therein;
- evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



Because we are responsible for the opinion on the financial statements, we are also responsible for the direction, supervision and performance of the group audit. In this context, we determined the nature and extent of the procedures to be performed for the group components. The scope and/or the risk profile of the group units or the activities are determining factors in that respect. On this basis, we selected the group components for which an audit or review of the complete set of financial information or specific items had to be performed.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Rotterdam, 16 March 2023

Ernst & Young Accountants LLP

drs. M. Verschoor RA

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If you want to find out more about TNO, if you have questions about this report or if you have any suggestions, send an email to info@tno.nl

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