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CHAPTER 10
IPSAS: CASE STUDY

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Summary

This chapter sets forth the Chapter 9 by presenting the accounting treatment of selected economic transactions. By using a case study of a municipality, specific accounting issues will be worked through using the standards and other pronouncements of the IPSASB.

Thereby this chapter provides insights into selected accounting issues dealt by public sector entities and the process to prepare financial reports in conformity with IPSAS. Thereby, also the accounting records and the changes in the accounts will be entered. The focus is on selected public sector relevant IPSAS, namely

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IPSAS 17, 21, 23, 32 and 42 and IPSASB ED 72. As a result of this chapter, a closing balance sheet, a statement of financial performance and a statement of financial position are developed.

Keywords
Public sector specific standards, IPSAS, non-cash generating assets, non-exchange transactions, service concessions, social benefits, transfer expenses

1. Introduction

This chapter sets forth the Chapter 9 by presenting the accounting treatment of selected economic transactions. By using a case study of a municipality, specific accounting issues will be worked through using the standards and other pronouncements of the IPSASB.

Thereby this chapter provides insights into selected accounting issues dealt by public sector entities and the process to prepare financial reports in conformity with IPSAS. The aim of this chapter is to deepen the readers' knowledge about certain areas of IPSAS accounting by resolving specific real life accounting cases. The focus will be on selected public sector relevant IPSAS, namely IPSAS 17, 21, 23, 32 and 42 and IPSASB's ED 72 on transfer expenses.

Relying on the IPSAS that have been introduced, initial and (the options for) subsequent measurement of property, plant and equipment (PPE) according to IPSAS 17 is exemplified and complemented by an impairment of non-cash generating assets (IPSAS 21). Furthermore, differences in the application of IPSAS 23 (revenues from non-exchange transactions) are highlighted by using examples with and without an obligation. With respect to non-exchange expenses the accounting treatment of a collective and individual service, transfer expenses and a social benefit will be illustrated. Finally, the two models of service concession arrangements (IPSAS 32) are characterised by two transactions.

The chapter is structured as follows: Section 2 introduces the case study. The subsequent sections are devoted to the accounting transactions of PPE (Section 3), revenues from non-exchange transactions (Section 4), non-exchange expenses (Section 5) and service concession arrangements (Section 6). In each section, the background of the transactions is explained and tasks to be resolved are formulated. In general, for each transaction, the reader is expected to set up the accounting records, to edit the accounts and the balance sheet, and to identify whether the transaction has an impact on the cash flow (C) or the financial performance (FP). In the corresponding lecture material[1], also the entire task description can be found, as well as the respective booking entries and updated balance sheets after each transaction. However, in this chapter, only in Section 7 the completion of the balance sheet, statement of financial performance and cash flow statement will be presented.

2. Description of the case study

Municipality "Eucity" is a public sector entity fully adopting the accrual basis IPSAS since 5 years, with 300,000 inhabitants and 300 employees in the municipal administration. The reporting period is equal to the calendar year. The following transactions take place in the year 20X1.

For each transaction, specific tasks have to be completed, such as developing the accounting records and indicating the potential impacts on the cash flow statement (C for cash flow) and the state-

[1] See Lecture 11, as of the 1st edition of the textbook available at https://www.uni-rostock.de/weiterbildung/offene-uni-rostock/onlinekurse/european-public-sector-accounting/

ment of financial performance (FP for financial performance; i.e. surplus and deficit). At the end, a closing balance sheet, cash flow statement and the statement of financial performance (nature of expense method) have to be prepared.[2]

At the beginning of the reporting period, inventory lists of assets and balance confirmations for bank accounts and liabilities have been created, which conform with the balance sheet at the end of 20X0.

Item	Remaining useful life / maturity	Opening balance 20X1
City hall	20 years	200 kEUR
Land of city hall		100 kEUR
Machines	10 years	50 kEUR
Mainframe computer	3 years	112.5 kEUR
Office wear (desks, chairs, IT)	4 years	44.5 kEUR
Software licenses	5 years	10 kEUR
Raw materials (mineral aggregates, bitumen)	To be used in 20X1	8 kEUR
Cash		25 kEUR
Bank account		250 kEUR
Accounts receivable	50% due in 20X1, remaining due in 20X4	40 kEUR
Non-exchange recoverables	Due in 20X1	30 kEUR
Bank liabilities	Annuity loan until 20X1+8, of which 12.5% due in 20X1	Total 240 kEUR
Pension for the mayor	Due in 20X1+30	50 kEUR
Accounts payable	Due in 20X1	11.75 kEUR
Non-exchange payables	Due in 20X1	3.25 kEUR

Table 10.1: Inventory list to compile the opening balance sheet

[2] For didactic purposes, the balance sheet and some accounting information is simplified and presented e.g. without comparative prior year information.

The introductory task is to assign these items to the respective balance sheet positions and to compile the opening balance sheet 20X1 starting with non-current items.

The opening balance sheet 20X1 is composed as shown in Table 10.2. Assets[3] that are expected to be used during more than one reporting period are assigned as non-current assets. Most of these non-current assets belong to the category of PPE.[4] Also liabilities have to be distinguished between current and non-current depending on their maturity. This also means that e.g. the accounts receivable and the bank liabilities have to be split and disclosed separately. The net assets are determined as the residual value between the total assets (870 kEUR) and the total liabilities (305 kEUR). As the reporting period starts with the opening balance sheet, the net surplus/(deficit) is zero, so that the net assets (565 kEUR) are recorded in the reserves.

ASSETS	kEUR	LIABILITIES AND NET ASSETS	kEUR
NON-CURRENT ASSETS		**NON-CURRENT LIABILITIES**	
Intangible assets	10	Pensions, other employee benefits	50
Property, plant and equipment	507	Financial liabilities	210
Accounts receivable	20	**CURRENT LIABILITIES**	
CURRENT ASSETS		Financial liabilities	30
Accounts receivable	20	Accounts payable	11.75
		Non-exchange payable	3.25
Non-exchange recoverables	30	**TOTAL LIABILITIES**	305
Inventories	8	**NET ASSETS**	
Cash and cash equivalents	275	Reserves	565
		Net surplus/(deficit)	**0**
		TOTAL NET ASSETS	**565**
TOTAL ASSETS	**870**	**LIABILITIES AND NET ASSETS**	**870**

Table 10.2: Opening balance sheet 20X1

[3] See Chapter 8 for a review of the asset definition.

[4] As defined in Chapter 9.

Taking the opening balance sheet as starting point, in the following the transactions of Eucity in 20X1 will be analysed and accounted for.

3. Selected transactions of property, plant and equipment

This chapter deals with initial and subsequent measurement of property, plant and equipment (PPE) according to IPSAS 17. In particular, the options for subsequent measurement of PPE are shown and also how an impairment of non-cash generating assets can be accounted for by applying IPSAS 21, addressing the three methods for determining value in use.

Transaction 1: Purchase of assets

In order to establish a public library, Eucity buys a building together with its lot of land on April 1st, 20X1. Both assets are ready for use as a library. Details of the transaction are presented in Table 10.3.

Costs	Amount	Financing / Payment
Purchase price land	50 kEUR	Bank loan (due in 20X1+20)
Purchase price building	147 kEUR	
Land transfer tax (for land only)	4 kEUR	Bank account
Notary fees (allocation: 25% land, 75% building)	4 kEUR	
Costs for establishing disabled access and parking on the land	5 kEUR	
General administration cost for setting up the library (already recorded as expenses)	3 kEUR	

Table 10.3: Details for Transaction 1

The tasks for Transaction 1 at initial recognition are to determine the acquisition cost and to set up the accounting records for 20X1.

In a first step to determine the acquisition cost, the assets purchased need to be identified. IPSAS 17 does not prescribe the unit of measure for recognition[5]. However, these assets belong to different classes: the lot of land (library building) belongs to the asset class of land (buildings). The acquisition cost is to be determined separately, also because the lot of land has an unlimited useful life, whereas the building has a definite useful life and is to be depreciated. Both are non-current assets and PPE.

In the second step, the acquisition cost components (IPSAS 17.30) as shown in Chapter 9 are determined. The purchase price and the fees have to be allocated to both assets whereas, according to Table 10.3, the costs for establishing the access for the disabled is recorded for the land only. The general administration cost cannot be capitalized (IPSAS 17.33). Table 10.4 and Table 10.5 show the allocation of cost.

Elements of cost	**Application to Transaction 1**	**Amount**
Purchase price	Purchase price	50 kEUR
+ Non-refundable import duties and purchase taxes	+ Land transfer tax + Notary fees (75% of 4 kEUR)	4 kEUR 1 kEUR
- Trade discounts and rebates	(none)	
+ Costs directly attributable to bringing the item into service	+ Making land accessible for disabled persons	5 kEUR
= Acquisition cost	**= Acquisition cost land**	**60 kEUR**

Table 10.4: Transaction 1: Acquisition cost of lot of land

[5] See Müller-Marques Berger (2018), p. 155.

Elements of cost	Application to Transaction 1	Amount
Purchase price	Purchase price	147 kEUR
+ Non-refundable import duties and purchase taxes	+ Notary fees (75% of 4 kEUR)	3 kEUR
- Trade discounts and rebates	(none)	
+ Costs directly attributable to bringing the item into service	(none)	
= Acquisition cost	**= Acquisition cost building**	**150 kEUR**

Table 10.5: Transaction 1: Acquisition cost of library building

According to IPSAS 5, also borrowing cost for the acquisition of qualified assets can optionally be capitalized. However, the benchmark treatment is to recognize borrowing costs as expenses (IPSAS 5.5). Presumably, both assets do not meet the definition of a qualified asset as these do not necessarily take a substantial time to be ready for their intended use or sale, but are ready for use. Thus, the borrowing cost are expenses. After determining the acquisition cost, the accounting records are set up separately for both assets, also indicating that part of the transaction influenced the cash flow[C]. The changes in the accounts will be considered when setting up the closing balance sheet in Section 7.

Debit		**to**	**Credit**	
Land	60 kEUR	to	Non-current financial liabilities	50 kEUR
			Bank account[C]	10 kEUR
Building	150 kEUR	to	Non-current financial liabilities	147 kEUR
			Bank account[C]	3 kEUR

Transaction 2: Self construction of a road

Due to (another) larger construction project, Eucity builds a by-pass road that will be used for 3 years only. The road is completed at the end of June 20X1. After 3 years, the road has to be closed and removed. Details are shown in Table 10.6.

Costs	Amount	Additional information
Costs for raw materials	8 kEUR	Taken from inventories
Personnel cost for own staff*	19 kEUR	Paid from bank account
Best estimate for cost of removing the road (Pre-tax discount rate: i = 3.57422% p.a.)	10 kEUR	In June 20X4

Table 10.6: Details for Transaction 2

* Simplified, including the employer's social security contributions, not yet recorded as expenses.

The tasks for Transaction 2 at initial recognition are to determine the construction cost of the item and to set up the accounting records for 20X1.

Again, the item is a non-current asset belonging to the class road network and balance sheet line item PPE. The construction cost calculation is shown in Table 10.7.

Elements of costs	Application to Transaction 2	Amount
Costs directly related to the unit of production	Raw material + Personnel cost	8 kEUR 19 kEUR
+ Systematic allocation variable and fixed production overheads	(none)	
+ Costs directly attributable to bringing the item into service	(none)	
+ Costs of obligations for dismantling, removing and restoring (DRR) the site after the end of use	(Discounted) Present value of the best estimate	9 kEUR
= Construction cost	**= Construction cost road**	**36 kEUR**

Table 10.7: Transaction 2: Acquisition cost of road

In order to determine the DRR cost after the end of use[6] the present value of the expenditures expected to settle the obligation has to be calculated (IPSAS 19.53). Therefore, the best estimate of future costs for dismantling the road in June 20X4 (10 kEUR) is discounted by 3 years, for which the pre-tax discount rate (i) is used:

$$\frac{10\ kEUR}{(1+i)^{years}} = \frac{10\ kEUR}{1.0357442^3} = 9\ kEUR$$

Thus, 9 kEUR are capitalized at initial recognition and at the same amount, a provision for DRR cost is accounted for. The accounting record is the following:[7]

Debit		**to**	**Credit**	
Road network	36 kEUR	to	Inventories	8 kEUR
			Bank account[C]	19 kEUR
			Provision for DRR costs	9 kEUR

After the initial measurement of the three items of PPE, their subsequent measurement at the end of the reporting year 20X1 is subject of Transactions 3-5 differentiated between the assets.

Transaction 3: Subsequent measurement of the library building

At the end of 20X1, the library building is to be subsequently measured. As shown in Transaction 1, the initial costs were 150 kEUR in April

[6] See Chapter 9 for more explanations.

[7] Simplified, the effects on financial performance due to the use of raw materials and personnel costs are neglected.

20X1. For buildings, as one class of assets, Eucity applies the cost model. Eucity expects that the acquisition cost will decrease with a constant charge over the useful life of 30 years to a residual value of 10 kEUR.

The library building contains an elevator for access of the disabled. The elevator makes up 20 kEUR of the initial costs of the building, has an expected useful life of only 10 years with no residual value and will be used by 600,000 persons with 30,000 persons using the elevator in the first year. This is based on the assumption that the number of passengers per year will increase over the useful life of the elevator.

The tasks for Transaction 3 are to determine the depreciation method and calculate the depreciation and to set up the accounting records for 20X1.

According to IPSAS 17.59, each part of an "item of PPE with a cost that is significant in relation to the total cost of the item shall be depreciated separately", i.e. the component approach is to be used. Thus, the building and its elevator are depreciated separately, but still disclosed together. The calculation of depreciation starts in April 20X1 with the availability for use, according to IPSAS 17.71. In this example, the useful life is considered in months and using the duodecimal method. Otherwise, in the first year, despite just being used for 9 months, the entity might choose to depreciate the whole year, and not to depreciate in the final. The calculation of the depreciation in 20X1 using the straight-line depreciation for the building and the units of production method (IPSAS 17.78) for the elevator is shown in Table 10.8.

	Library building	**Elevator**
Useful life	30 years	10 years
Residual value	10 kEUR	0 kEUR
Depreciation method	Straight-line method	Units of production method

Depreciable amount	Initial costs - elevator - residual value = 150 kEUR - 20 kEUR - 10 kEUR = **120 kEUR**	Initial costs of elevator - residual value = 20 kEUR - 0 = **20 kEUR**
Calculation of depreciation in 20X1	$\frac{\text{Depreciable amount}}{\text{Useful life}} \cdot \frac{\text{Months in 20X1}}{\text{12 months}}$ $= \frac{\text{120 kEUR}}{\text{30 years}} \cdot \frac{\text{9 months}}{\text{12 months}}$ **= 3 kEUR**	$\frac{\text{Depreciable amount}}{\text{Total production}} \cdot \text{Production 20X1}$ $= \frac{\text{20 kEUR}}{\text{600,000 persons}} \cdot \text{30,000 persons}$ **= 1 kEUR**

Table 10.8: Transaction 3: Subsequent measurement for Transaction 1

Thus, for the first 9 months of use, the building is depreciated by 3 kEUR and the elevator by 1 kEUR, which is recorded as an expense (and therefore affects the statement of financial performance^{FP}) as shown in the accounting records below. Depreciation expense refers to accumulated depreciation, that allow to decrease the assets value in the balance sheet every year. The component approach only concerns valuation of assets, but not their presentation in the balance sheet. As such, the elevator remains a part of the building, but is depreciated separately.

Debit		**to**	**Credit**	
Depreciation expense^{FP}	3 kEUR	to	Building	3 kEUR
Depreciation expense^{FP}	1 kEUR	to	Building	1 kEUR

Transaction 4: Subsequent measurement of library's lot of land

At the end of reporting period 20X1, the lot of land of the library (Transaction 1) is to be subsequently measured. For land, as one class of assets, Eucity applies the revaluation model. In general, land has an unlimited useful life. The library's lot of land lies in a prosperous area in Eucity. As such, significant changes in fair value are expected, so that Eucity undertakes an annual revaluation. For the other property hold by Eucity (the lot of land of the city hall (100 kEUR)), no revaluations are necessary as no change in fair value incurred. The fair value of the library's lot of land is reliably determined from market-based evidence by appraisal. The following fair values were assessed at the respective revaluation dates:

Revaluation date; end of	Fair value of the lot of land
20X1	75 kEUR
20X2	50 kEUR
20X3	60 kEUR

Table 10.9: Details for Transaction 4: Fair values of the lot of land

The tasks for Transaction 4 are to determine the carrying amount of the lot of land at the end of the years 20X1, 20X2 and 20X3, to set up the accounting records for the same years, but to update the accounts and the balance sheet for the year 20X1 only.

As the lot of land is an asset with an unlimited useful life, the asset is not depreciated. Therefore, the asset can be immediately revalued, i.e. it is subsequently measured at fair value: above (below) its initial costs in revaluation reserve (allocated to deficit or surplus). This is shown in Table 10.10. For year 20X1, the revaluation effect of 15 kEUR are accounted for through the revaluation reserve (IPSAS 17.44 ff.). In year 20X2, the revaluation reserve is reduced until zero value (i.e. 15 kEUR) and the remaining amount of 10 kEUR is allocated to surplus or deficit (i.e. affecting financial performance). In year 20X3, the increase in the carrying amount is also recorded in surplus or deficit[FP] because the initial costs are not exceeded.

				Revaluation recognized in	
Year	**Carrying amount beginning of year**	**Fair value of the lot of land**	**Carrying amount end of year**	**Revaluation reserve**	**Surplus or deficit (Profit/ Loss)**
20X1	60 kEUR	75 kEUR	75 kEUR	+15 kEUR	
20X2	75 kEUR	50 kEUR	50 kEUR	-15 kEUR	-10 kEUR
20X3	50 kEUR	60 kEUR	60 kEUR		+10 kEUR

Table 10.10: Transaction 4: Revaluation of lot of land

The accounting records for the revaluations are shown below.

Year	Debit		to	Credit	
20X1	Land	15 kEUR	to	Revaluation reserve	15 kEUR
20X2	Revaluation reserve	15 kEUR	to	Land	25 kEUR
	Impairment expenses^{FP}	10 kEUR			
20X3	Land	10 kEUR	to	Reversal of impairment^{FP}	10 kEUR

Notabene: No deferred taxes are to be booked, because Eucity is not subject to income taxes or the like.

Transaction 5: Subsequent measurement of the road and its provisions for DRR costs

At the end of year 20X1, also the self-constructed road and the provision for DRR costs (initial recognition 9 kEUR at end of June 20X1, 3 years, discount rate 3.57442% p.a.) are subject to subsequent measurement (Transaction 2). Eucity applies the cost model with a straight-line depreciation for the 3 years of useful life with no residual value.

The tasks for Transaction 5 are to calculate the carrying amount of the road at the end of 20X1 and of the provision at the end of the years 20X1 to 20X3, but to set up the accounting records for 20X1 only.

The road was capitalized at an amount of 36 kEUR in June 20X1. Thus, it needs to be depreciated for 6 months until the end of 20X1 by using the straight-line method. Like in Transaction 4, the duodecimal system is used, i.e. considering the precise months of use:[8]

$$\frac{Depreciable\ amount}{Useful\ life} \cdot \frac{Months\ in\ 20X1}{12\ months} = \frac{36\ kEUR}{3\ years} \cdot \frac{6\ months}{12\ months} = 6\ kEUR$$

Just like the road (the asset), also the provision needs to be subsequently measured (IPSAS 19.54). Presumably, the expected DRR costs do not change. This means that for year 20X1 the provision is to be compounded by 6 months (until the end of 20X1) by using the underlying monthly pre-tax interest rate i_m of 0.293097% p.m.[9] Thus, as shown in Table 10.11 below, at the end of the first year, the provision increases by 159 EUR, which is accounted for as an interest expense (i.e. through surplus or deficit). The process of compounding is repeated for the years 20X2 and 20X3 for 12 months and for 20X4 for 6 months only. In June 20X4, the present value of the provision equals 10 kEUR which is the best estimate for the cost of removing the road (see Table 10.6 of Transaction 2), as the estimation was not subject to revision.

Date	**Present value at beginning of reporting period**	**Calculation: Compounding of provision Present value$_{20XX}$ x $(1+i_m)^{months}$**	**Present value at end of reporting period of the provision**	**Interest expense**
31 Dec 20X1	9,000 EUR	9,000 EUR × 1.002930976	9,159 EUR	159 EUR
31 Dec 20X2	9,159 EUR	9,159 EUR × 1.0029309712	9,487 EUR	328 EUR
31 Dec 20X3	9,487 EUR	9,487 EUR × 1.0029309712	9,825 EUR	338 EUR
30 June 20X4	9,825 EUR	9,825 EUR × 1.002930976	10,000 EUR	175 EUR

Table 10.11: Transaction 5: Subsequent measurement of the provision

[8] In some countries, it is also possible to consider the whole year (i.e. Germany and Portugal).

[9] $\sqrt[12]{1.0357442} - 1$ = 0.293097% p.m. See in the online lecture material, Lecture 11 Appendix A for the calculation.

Accordingly, the accounting records for 20X1 for this transaction are the following:

Debit		to	Credit	
Depreciation expense^{FP}	6 kEUR	to	Road network	6 kEUR
Interest expense^{FP}	0.2 kEUR	to	Provision for DRR	0.2 kEUR

Transactions 6-8: Impairment of non-cash generating assets

After the acquisition and construction of assets and their subsequent measurement has been completed according to IPSAS 17, the following three transactions relate to the impairment of assets, which is a further step in subsequent measurement. As non-cash generating assets are a public sector specific matter, IPSAS 21 has no IAS/IFRS-equivalent. Due to the high importance of these assets in the public sector, the following transactions focus on the application of IPSAS 21 only.[10]

The case study proceeds as follows: At the end of the reporting year 20X1, straight-line depreciation has been recorded for all assets with a limited useful life. The indication whether non-cash generating assets may be impaired has been checked by assessing internal and external indicators (IPSAS 21.27). The results are shown in Table 10.12.

Asset	Indicator & Description	Details
Mainframe computer	**Significant long-term change with adverse effect on use:** Usage of mainframe computer declined by 80% as Eucity increasingly relies on cloud computing technologies. The mainframe computer has an estimated useful life of 5 years and is in 20X1 at the end of its 3rd year of use. A smaller (new) computer that can provide the remaining service potential has a market price of 30 kEUR. Reproduction is not possible by Eucity.	Carrying amount: 75 kEUR Asset's market price: 50 kEUR Costs of disposal: 5 kEUR

[10] See Chapter 9 for a definition of non-cash generating assets.

Road (Transactions 2 & 5)	**Physical damage of the asset:** Several severe Winter caused road holes, plans to conduct road repair in Spring 20X2. The road has been built and completed at the end of June 20X1. Restoring the road to a usable condition would require 10.5 kEUR. To build a new road (incl. costs of obligations for DRR after the end of use) would now cost 39 kEUR. The restoration will not affect the useful life of the road.	Carrying amount: 30 kEUR Fair value less costs to sell: no reliable estimate available
Scanner for books	**Cessation of the demand or need for services provided by the asset:** Library users do rarely use scanning service in the library. The scanner was acquired and recorded on 1st January 20X0 for 15 kEUR (included in office wear). Its use was estimated to be 100,000 scans per year for 6 years of its useful life. Citizens used the service only 60,000 times in each year, i.e. the number of service units decreased by 40%. A new scanner would cost 13.5 kEUR.	Carrying amount: 10 kEUR Asset‘s market price: 10.5 kEUR Costs of disposal: 0.5 kEUR

Table 10.12: Details for Transactions 6-8

The tasks for Transactions 6-8 are to explain the general rule for impairment and to describe for each of the three assets, which method for measuring value in use is appropriate. Afterwards, the value in use for each of the three assets is to be determined and the necessity of an impairment is to be assessed and (if applicable) at which amount. Then, the accounting records for the year 20X1 are to be completed.

The general rule of impairment is explained in details in Chapter 9, Section 3 with the respective references. To put it short: An asset is to be impaired, if the recoverable (service) amount lies beyond the asset’s carrying amount. Before, the recoverable (service) amount needs to be determined, which is the higher of the fair value less costs to sell (FVLCTS) and the value in use (VIU). In the following, the procedure is described for each of the assets separately.

Transaction 6: Depreciated replacement cost approach

With respect to the mainframe computer, drawing on the information shown in Table 10.12, the FVLCTS and VIU are to be calculated. The

FVLCTS is the difference between the asset's market price and its costs of disposal, i.e. 45 kEUR. As it is lower than the carrying amount of the asset (75 kEUR), also the VIU needs to be determined. In this example, the mainframe computer is an overcapacity asset: its capacity is greater than necessary to meet the demand, also as no standby or surplus capacity is needed. As such, in order to determine the VIU, the depreciated replacement cost approach is appropriate (IPSAS 21.45-.47) with the calculation shown in Table 10.13 (see also IPSAS 21.IE2, IE4, IE6 and IE8). Hereby, the replacement by another computer is assumed that has the required (lower) capacity to fulfil the demand. As the mainframe computer has been used for 3 years already, also the replacement computer needs to be depreciated for 3 years. Therefore, the VIU is 12 kEUR.

Carrying amount, end of 20X1	75 kEUR
Replacement cost (new computer)	30 kEUR
Accumulated depreciation 30 kEUR × $\frac{3}{5}$ years	-18 kEUR
Depreciated replacement cost = Value in use	12 kEUR

Table 10.13: Transaction 6: Depreciated replacement cost approach

The recoverable service amount of the mainframe computer is the higher amount of the FVLCTS (45 kEUR) and the VIU (12 kEUR). As 45 kEUR lies below the carrying amount of the asset (75 kEUR), an impairment by 30 kEUR is required and recorded as follows:

Debit		to	Credit	
Impairment expense^{FP}	30 kEUR	to	Computer	30 kEUR

Transaction 7: Restoration cost approach

As shown in Table 10.12, the road is physically damaged. It needs to be repaired to restore its service potential to its pre-impaired level.

Therefore, the restoration cost approach is suitable to determine its VIU (IPSAS 21.48) with the calculation shown in Table 10.14 (see also IPSAS 21.IE10 and IE12). Thereby, the VIU is based on the costs of an undamaged new road, also in order to reflect potential changes in prices, it needs to be depreciated by 6 months to have a comparative level of use (see information in Table 10.12). The VIU of the road is 22 kEUR.

Carrying amount, end of 20X1	30 kEUR
Replacement cost (new road)	39 kEUR
- Accumulated depreciation $\frac{39\ \text{kEUR}}{3} \times \frac{6}{12}$	-6.5 kEUR
Depreciated replacement cost (undamaged)	32.5 kEUR
- restoration cost	-10.5 kEUR
Value in use	22 kEUR

Table 10.14: Transaction 7: Restoration cost approach

In order to find the recoverable service amount, in general, the FVLCTS would be needed as well, but is not available for the public road. Therefore, the VIU of 22 kEUR may be used as recoverable service amount (IPSAS 17.37). As it is lower than the carrying amount of the asset (30 kEUR), the road is to be impaired by 8 kEUR:

Debit		**to**	**Credit**	
Impairment expenses^{FP}	8 kEUR	to	Road network	8 kEUR

Transaction 8: Service units approach

For the book scanner, as shown in Table 10.12, the number of service units to be produced by the asset has reduced, as the demand for this asset ceased. As the service units are measurable, the service units approach is most appropriate for measuring the asset's VIU (IPSAS 21.49). The scanner was acquired and recorded on 1st January 20X0 for 15 kEUR. Its number of service units needed decreased by 40%. A new scanner would cost 13.5 kEUR. The calculation of the VIU based on the service units approach is shown in Table 10.15 (see also IPSAS 21.IE14).

Carrying amount, end of 20X1 $15\text{ kEUR} - \frac{15\text{ kEUR}}{6} \times 2$	10 kEUR
Replacement cost (new scanner)	13.5 kEUR
- Accumulated depreciation $\frac{13.5\text{ kEUR}}{6} \times 2$	-4.5 kEUR
Depreciated replacement cost (before adjustment for remaining service units)	9 kEUR
- Reduction of remaining service units (40%)	-3.6 kEUR
Value in use	5.4 kEUR

Table 10.15: Transaction 8: Service units approach

Thus, the VIU of the scanner is 5.4 kEUR and lower than the FVLCTS (market price less costs of disposal), so that the recoverable service amount is 10 kEUR. Therefore, no impairment is required, as the FVLCTS equals the carrying amount. In general, a VIU calculation was not necessary as the FVLCTS was determinable more easily and not below the carrying amount. Therefore, for this transaction, no accounting record is needed.

With respect to Transactions 6-7, in the future, Eucity will have to check whether there are indications that the impairment for both assets has increased, decreased or does not exist anymore (IPSAS 21.64). In such latter cases Eucity may potentially have to record a reversal of impairment to the maximum of the carrying amount of the asset without prior impairment (i.e. taking net depreciation or amortization of the original acquisition or production costs into account) (IPSAS 21.68).

4. Selected transactions of non-exchange transactions

Section 4 explains the application of IPSAS 23 Revenue from non-exchange transactions (by drawing two transactions one with a taxation and one with a donation) and Section 5 selected expenses from non-exchange transactions.

Transaction 9: Taxation of citizens

For any conveyance and disposition of land in its territory, Eucity imposes a 10% land transfer tax. In June 20X1, Citizen A acquired a lot of land for 500 kEUR (effective date of the transfer). Eucity issues a tax statement, which will probably be paid by Citizen A in July 20X1.

> **The tasks for Transaction 9** are to determine whether this is a non-exchange transaction and when it has to be recognized. If applicable, the accounting records are to be developed followed by an update of the accounts and the balance sheet.

In a first step, it needs to be checked whether the inflow of cash represents an asset. According to IPSAS CF 5.6 an asset is a resource presently controlled by the entity as a result of a past event. In this case, the payment by Citizen A represents a resource, which is controlled by Eucity, because Eucity has an enforceable claim (= the tax statement issued). The past event, here the taxable event, is the acquisition of land according to tax law. As the inflow of resources is probable and the inflow can be reliably measured, an asset is to be recognised with the IPSAS to be applied in question.

IPSAS 23 only applies to revenues from non-exchange transaction, which means that there is no exchange of approximately equal values. This is the case here, as Citizen A pays the tax, but does not receive an asset from Eucity in exchange. Through the tax, Eucity receives a revenue (IPSAS 23.12), i.e. is a gross inflow of economic benefits or service potential, which represents an increase in net assets, other than increases relating to contributions of owners.

IPSAS 23.14-18 also provides information about potential stipulations (conditions or restrictions) on the transferred assets. However, this does not apply to tax payments. Therefore, it can be concluded that the payment is to be recognised as a revenue according to IPSAS 23, after determining the taxable event and the tax amount. The taxable event (subject to taxation; IPSAS 23.7) is June 20X1, in which the transfer of land has been conducted. The tax amount is 50 kEUR (10% of 500 kEUR).

The accounting records are the following. First when the tax statement is issued, non-exchange recoverables are booked and the transaction is recorded in a revenue account, here called land transfer taxes, which affects the financial performance of Eucity. After Citizen A completed the payment, non-exchange recoverables are decreased.

Debit		**to**	**Credit**	
Non-exchange recoverables	50 kEUR	to	Land transfer taxes^{FP}	50 kEUR
Bank account^{C}	50 kEUR	to	Non-exchange recoverables	50 kEUR

Transaction 10: Donation of an asset with obligation

On December 31st, 20X1, Citizen B voluntarily transfers a building, which was the birthplace of a famous person, to Eucity. The transfer, however, underlies a contractual agreement: Eucity needs to open the house to the public for the next 10 years. If the condition is not met, the initially recognized value of the building – reduced pro rata temporis over 10 years – is to be retransferred.

The carrying amount of the building is 80 kEUR, whereas its fair value is 100 kEUR. As a public sector entity, Eucity is not subject to tax over donations received.

The tasks for Transaction 10 are to assess the measurement of the asset, the obligation and the revenue from the non-exchange transaction. Afterwards, the accounting records are to be set up.

Again, as for Transaction 9, it needs to be considered whether there is an asset to be recognised. In this case, also, an asset is prevalent, as Eucity gains control over the building by completing its transfer together with an agreement which is based on a past event, i.e. the donation of Citizen B. Here, the building is a heritage asset, for which there is an option for recognition (IPSAS 17.9), which Eucity decided to use. The asset is to be measured at fair value, i.e. 100 kEUR. As Eucity does not provide a value in exchange for the building, IPSAS 23 is to be applied for this non-exchange transaction.

However, compared to Transaction 9, it needs to be considered that this is a transaction with a condition (making open to the public for at least 10 years). Therefore, for Transaction 10, a performance obligation due to this condition has to be recognised in the form of a liability (IPSAS 23.17, 23.23 and 23.55). In future reporting periods, the liability is reduced on a straight-line basis, and revenue is progressively recognised for each reporting period in which the condition is fulfilled (i.e. 10 kEUR per year) (IPSAS 23.BC11). Initially, the liability is measured at 100 kEUR and split up in its current and non-current part. Here, it is presumed that there is no material time value of money, so the liability it is not discounted (IPSAS 19.53). The first year's accounting records are as the following:

Debit		to	Credit	
Buildings	100 kEUR	to	Non-current financial liability	90 kEUR
			Current financial liability	10 kEUR

5. Selected transaction of non-exchange expenses

In this section transaction related to non-exchange expenses will be discussed. Hereby Eucity receives no nominal consideration in return for the expenses it makes. The transactions are inspired by the illustrative examples that accompany IPSAS 19, 42 and IPSASB ED 72.

The tasks for Transactions 11-15 are first to determine which type of non-exchange expense it represents and which aspects should be recorded. Thereafter, the timing of recognition and measurement of the expenses should be defined and finally the accounting records for the year 20X1 are to be prescribed.

Transaction 11: Expenses for municipal education

Eucity organizes education for primary school students in a public school. It pays the salaries of the teachers assigned in the school (a total of 3 kEUR/month, paid at the end of each month).

As these expenses are intended to provide services to individuals (i.e. pupils) to address the educational needs of society as a whole, they are considered **expenses for individual services**. According to IPSAS 19 AG 15-16, these expenses are considered as expenses for ongoing activities of Eucity and not as transfer expenses or social benefits (students do not have to satisfy eligibility criteria).

Notwithstanding that Eucity, e.g. by law, has the obligation to continue to offer educational services, no provision should be recognized for those future services after the balance sheet date as they give no rise to a present obligation (IPSAS 19 AG 14).

Consequently, only the salaries could, according to IPSAS 39.11, be recognized as an expense and a liability when the teachers have rendered service to the public school, if and only if, service-delivery and payment periods would differ. As the salaries are paid by the end of each month in which the services were rendered, the liability will be deducted each time by this payment. Thus, every month salary expenses will be recognized in surplus or deficit (for the due amounts from January 20X1 until December 20X1). Subsequently a payment will be recorded at the end of every month (for the due amounts from January 20X1 until December 20X1). As a result, no due amount for salary expenses will be recorded in the accounts payable in the closing balance sheet 20X1.

	Debit		**to**	**Credit**	
Jan 20X1 - Dec 20X1	Salary expenses^{FP}	3 kEUR	to	Bank^{C}	3 kEUR

Transaction 12: Payments for making available sport infrastructure

As of the beginning of 20X1 Eucity has a binding arrangement with a sport facility entity that owns and manages a swimming pool. According to this arrangement, children from Eucity under 12 years of age should have access to the pool free of charge. In return, Eucity pays 1 kEUR per month (paid in the month following the month in which the children had free access to the pool).

As Eucity does not directly receive any goods or services in return, the expense is considered **a transfer expense with a performance**

obligation as the owner and manager of the swimming pool has to provide services to a third-party beneficiary.

According to IPSASB ED 72.33 and 72.47 Eucity has to recognize a transfer expense when the performance obligation is satisfied. As the extent to which the children use the pool does not affect the monthly payment, Eucity will recognize a transfer expense on a straight-line basis throughout the year at 1 kEUR per month (as long as the pool remains available for the children). Thus, every month a transfer expense will be recognised in the accounts (for the due amounts from January until December X1). Also a payment will be recorded every month (for the due amounts from January 20X1 until November 20X1). As a result, the due amount for December 20X1 (1 kEUR) will be recorded in the account payable in the closing balance sheet 20X1.

	Debit		**to**	**Credit**	
Jan 20X1 - Dec 20X1	Transfer expenses[FP]	1 kEUR	to	Accounts payable	1 kEUR
Feb 20X1 - Dec 20X1	Accounts payable	1 kEUR	to	Bank[C]	1 kEUR

Transaction 13: Cash transfer for social housing

Eucity enters into an agreement with a social housing entity to make a one-off cash transfer of 50 kEUR to a social housing entity. The agreement specifies that the social housing entity must:

(a) Increase the number of social housing units by 5; or
(b) Use the cash transfer to make the existing social housing units more eco-friendly.

If none of these requirements are satisfied, the social housing entity must return the cash to Eucity. On September 15th 20X1 Eucity transfers the 50 kEUR to the housing entity.

As the social housing entity has no obligation to provide goods or services to a third-party beneficiary, there is **no performance obligation** for the social housing entity. However, there is **a binding arrangement** in which the rights and obligations for both parties are stipulated. Consequently, Eucity should (IPSASB ED 72.91) recognize **a transfer expense** at the earlier of the point at which it has a present obligation to transfer the 50 kEUR or the point at which it transfers the amount. As Eucity has paid out the amount on September 15th 20X1, it has to record at that time a transfer expense.

	Debit		**to**	**Credit**	
Sep 15th 20X1	Transfer expenses[FP]	50 kEUR	to	Bank[C]	50 kEUR

Any return of the funds is conditional on a future event (due to non-compliance with the binding arrangement). As long as Eucity has no enforceable right to claim the return of the funds, no assets should be recorded for the possible return of the fund (IPSASB ED 72 AG94).

Transaction 14: Grant for a culture association

The municipal council of Eucity decided to grant a culture association an amount of 7.5 kEUR to support its operations. No further arrangements have been settled between Eucity and the association. Eucity pays on May 1st 20X1. In this case, there is **a transfer expense without performance obligation and no**

binding arrangement. Those transfers should be recognized as an expense when the cash transfer to the culture association is performed. At that time Eucity loses control of the transferred resources (IPSASB ED 72.91).

	Debit		to	Credit	
May 1st 20X1	Transfer expenses^{FP}	7.5 kEUR	to	Bank^{C}	7.5 kEUR

Transaction 15: Disability pensions

Eucity pays disability pensions to individuals, inhabitants of Eucity, who have a permanent disability (certified by a doctor) that prevents them from working, regardless of their age. The pensions, equal to 2.5 kEUR/month for the period January 20X1 until June 20X1; 2.75 kEUR for the period July 20X1 until November 20X1 and 3.25 kEUR for December 20X1, is paid in the month following the month in which the eligibility criteria were met. At 31 December 20X0 Eucity recognized a liability of 2.25 kEUR (non-exchange payable) for disability pensions payable to those who satisfied the eligibility criteria at that date. As the disability pensions are cash transfers, provided to specific individuals, who meet an eligibility criteria, and are intended to mitigate the effect of social risks and address the need of society as a whole, they meet the definition of **a social benefit** (IPSAS 42.5).

According to the general approach of IPSAS 42, the pensions should be recognized monthly as an expense and a liability when the eligibility criteria to receive the next amount are satisfied (IPSAS 42.6 & 42.10). A payment will also be recorded every month (for the due amounts of the previous month).

	Debit		to	Credit	
Jan 20X1 - June 20X1	Social Benefit^{FP}	2.5 kEUR	to	Accounts payable	2.5 kEUR
Jan 20X1	Accounts payable	2.25 kEUR	to	Bank^{C}	2.25 kEUR
Feb 20X1 - July 20X1	Accounts payable	2.5 kEUR	to	Bank^{C}	2.5 kEUR
July 20X1 - Nov 20X1	Social Benefit^{FP}	2.75 kEUR	to	Accounts payable	2.75 kEUR
Aug 20X1 - Dec 20X1	Accounts payable	2.75 kEUR	to	Bank^{C}	2.75 kEUR
Dec 20X1	Social Benefit^{FP}	3.25 kEUR	to	Accounts payable	3.25 kEUR

6. Selected transactions of service concession arrangements

Public sector entities increasingly use partnerships with private sector entities for their service delivery. Some of these partnerships are service concession arrangements, in which a private sector entity uses or develops an asset of a public sector entity in order to provide public services (for a definition see Chapter 9). Here, IPSAS 32 applies if certain criteria are met. Under IPSAS 32, there are two different models of how to account for service concession arrangements. They are introduced by Transactions 16 and 17 in the following.

Transaction 16: Construction and fixed-payment operation of a tunnel by an operator

Eucity commissioned an external operator to construct a tunnel running under a river in 20X0. The tunnel is completed and accepted by Eucity on 1st January 20X1. The construction cost of the tunnel is 250 kEUR and has been financed by the operator. The expected useful life of the tunnel is 20 years and the residual value after a straight-line depreciation is 50 kEUR. The arrangement also specifies that from 20X1 onwards for the next 10 years, the operator delivers the following free of access services to the public:

- operation of the transit through the tunnel;
- maintenance works at the tunnel.

Thereby, Eucity controls the services to be provided by the operator and pays an unconditional fixed amount of 40 kEUR at the end of each year to the operator of which the service charge is 10 kEUR. After the end of the term, the operator will transfer the operation of the tunnel to Eucity. By then, Eucity also controls the residual interest in the tunnel.

The rate implicit in the service concession arrangement specific to the asset is 3.46% p.a.

The tasks for Transaction 16 are to determine the type of service concession contract, (if applicable) to recognize and measure the elements to be recorded and to set up the accounting records in 20X1.

In this transaction, Eucity has an unconditional obligation to pay for the construction of the asset. Therefore, the **financial liability model** applies according to IPSAS 32.18. This means that in January 20X1 an asset and a liability have to be recognised. The asset is the tunnel, which is part of the asset class PPE. According to IPSAS 32.11 initial measurement is to be done at the fair value of the tunnel, which are the construction costs of the tunnel (IPSAS 32.AG30, IPSAS 17.26). Therefore, the tunnel is initially measured at 250 kEUR. According to IPSAS 32.15 the liability is to be initially measured at the same amount as the asset, i.e. also 250 kEUR.

At the end of the reporting year, i.e. December 20X1, also the payment of 40 kEUR is to be accounted for. According to the financial liability model the payment is to be distinguished between (1) a service component (here the service charge of 10 kEUR) and (2) an asset component, which is related to the liability and needs to be further distinguished into a finance charge and the reduction in liability. First, the finance charge is determined, which is the borrowing cost of ca. 8.7 kEUR (250 kEUR × 3.46%).[11] The calculation of the reduction in liability in 20X1 is shown in Table 10.16.

Annual payment	40 kEUR
– Service charge	10 kEUR
– Finance charge	8.7 kEUR
Reduction in liability	**21.3 kEUR**

Table 10.16: Transaction 16: Calculation of reduction in liability

Besides the payment of 40 kEUR, at the end of the reporting year also the depreciation of the tunnel has to be considered. In this case the cost model according to IPSAS 17.43 is applied:

$$\frac{(250\text{ kEUR} - 50\text{ kEUR})}{20\text{ years}} = 10\text{ kEUR}.$$

Summarising Transaction 16, the following accounting records have to be set up. The first concerns the beginning of the year, when the tunnel is acquired and the liability is recognised. The two remaining are for the depreciation of the tunnel and the payment of Eucity to the operator at the end of 20X1.

[11] See in the online lecture material, Appendix B for the calculation for the entire term of the contract.

	Debit		to	Credit	
Jan 20X1	Road network	250 kEUR	to	Non-current financial liability	250 kEUR
Dec 20X1	Depreciation expense[FP]	10 kEUR	to	Road network	10 kEUR
	Service expense[FP]	10 kEUR	to	Bank[C]	40 kEUR
	Financial charge[FP]	8.7 kEUR			
	Non-current financial liability	21.3 kEUR			

For reporting of liabilities, it has to be distinguished between current and non-current liabilities (IPSAS 1.80). For this transaction, the financial liability has to be split into one part with a longer duration and one part that is due within the next operating cycle. So for the next reporting year, the amount due is to be calculated for this transaction. By the end of the reporting year 20X1, the liability has a carrying amount of 228.7 kEUR (250 kEUR – 21.3 kEUR). So in the next reporting year, a financial charge of 7.9 kEUR (228.7 kEUR × 3.46%) is due. The reduction of the non-current liability consequently is 22.1 kEUR (40 kEUR – 10 kEUR –7.9 kEUR)[12], which requires the following accounting record:

Debit		to	Credit	
Non-current financial liability	22.1 kEUR	to	Current financial liability	22.1 kEUR

Transaction 17: Construction and operation of a tunnel by an operator with the right to earn revenue from third-party users

Eucity commissioned an external operator to construct another tunnel running under a railtrack in 20X0. The tunnel is completed and accepted by Eucity (= grantor obtains control) on 1st January 20X1.

[12] See calculation for the previous year in the text ahead.

The construction cost of the tunnel is 250 kEUR and has been financed by the operator. The expected useful life of the tunnel is 20 years and the residual value after a straight-line depreciation is 50 kEUR.

The arrangement also specifies that from 20X1 onwards for the next 10 years, the operator delivers the following services by collecting tolls from users:

- operation of the transit through the tunnel;
- maintenance works at the tunnel.

There is no direct payment from Eucity to the operator, but the operator will receive revenue from car drivers' tolls. A constant number of users is expected with a collection of tolls of 40 kEUR per year.

The tasks for Transaction 17 are to determine the type of service concession contract, (if applicable) to recognize and measure the elements to be recorded and to set up the accounting records for 20X1.

This transaction is different from Transaction 17, as the operator is not compensated by Eucity, but granted the right to earn revenues from the users of the tunnel. Therefore, the **grant of a right to the operator model** (IPSAS 32.24) is to be used here. This means that in January 20X1, an asset (i.e. the tunnel) and also a liability (i.e. the unearned revenue) is to be recognised. The asset is to be initially measured like an exchange of non-monetary assets (IPSAS 32.AG25b) that means to its fair value at the date of acquisition (IPSAS 17.27), here 250 kEUR. The liability is to be measured at the same amount as the asset (IPSAS 32.15). Even the IPSASB considered the question of measuring the liability: It concluded that "generally it will be appropriate to determine the fair value of the asset received (the service concession asset). This is because the right to earn revenue from third-party users (which is the asset given up under the grant of a right to the operator model) will not have been previously recognized in the grantor‘s statement of financial position. Consequently, the fair value of the asset received (the service concession asset) will be more clearly evident that the fair value of the asset given up”[13] (the right to collect tolls).

At the end of year 20X1, the depreciation amount of the tunnel on a straight-line basis is determined: $\frac{(250\text{ kEUR} - 50\text{ kEUR})}{20\text{ years}}$

For this asset, there would have been the subsequent measurement choice between applying the cost or the revaluation model (IPSAS 17.42), however, assets with a limited useful life need to be depreciated either way. Eucity applies the cost model. As there are no indications for impairment, their assessment and a test for impairment are obsolete (IPSAS 21.26).

It is assumed that the time value of revenue recognition is not significant, therefore the liability needs not to be discounted. As such, the reduction in liability equals the pattern of revenue recognition which depends on the access to the service concession asset:

$$\frac{250\text{ kEUR}}{10\text{ years}} = 25\text{ kEUR}$$

Therefore, the accounting records for the year 20X1 are the following: The first refers to initial recognition in January 20X1, whereas the remaining two relate to subsequent measurement at the end of 20X1:

	Debit		**to**	**Credit**	
Jan 20X1	Road network	250 kEUR	to	Non-current service concession liability	250 kEUR
Dec 20X1	Depreciation expense[FP]	10 kEUR	to	Road network	10 kEUR
	Non-current service concession liability	25 kEUR	to	Service concession revenue[FP]	25 kEUR

[13] IPSASB Q&A, February 2016, Q1.

As discussed under transaction 16, a distinction should be made between the current and non-current liabilities (IPSAS 1.80). So, for this transaction, the service concession liability has to be split once again into one part with a longer duration (200 kEUR) and one part that is due within the next operating cycle (25 kEUR). This requires the following accounting record:

Debit		to	Credit	
Non-current service concession liability	25 kEUR	to	Current service concession liability	25 kEUR

7. Conclusion

After the accounting for the 17 transactions in 20X1 have been completed, Eucity's financial statements[14] can be compiled. Here, the completion tasks are not to compile and present the entire set of financial statements required by IPSAS 1.21[15], but a closing balance sheet, a cash flow statement and a statement of financial performance for the reporting year 20X1, only.

After closing all the accounts, the balance sheet as shown in Table 10.17 is derived.

ASSETS (in kEUR)	20X1	20X0	LIABILITIES AND NET ASSETS (in kEUR)	20X1	20X0
NON-CURRENT ASSETS			**NON-CURRENT LIABILITIES**		
Intangible assets	10	10	Pensions, other employee benefits	50	50

[14] In the corresponding lecture material, also the transactions in the accounts and balance sheet are to be recorded. As of the 1st edition of the textbook, see Lecture 11, available at https://www.uni-rostock.de/weiterbildung/offene-uni-rostock/onlinekurse/european-public-sector-accounting/

[15] See also Chapter 3 & 8 for further explanations of the different statements.

Property, plant and equipment	1,300	507	Financial liabilities	703.6	210
Accounts receivable	20	20	Service concession liability	200	0
CURRENT ASSETS			Provisions (…) DRR	9.2	0
Accounts receivable	20	20	**CURRENT LIABILITIES**		
Non-exchange recoverables	30	30	Financial liabilities	62.1	30
Inventories	0	8	Accounts payable	11.75	11.75
Cash and cash equivalents	117.5	275	Non-exchange payable	5.25	3.25
			Service concession liability	25	0
			TOTAL LIABILITIES	**1,066.9**	**305**
			NET ASSETS		
			Reserves	580	565
			Net surplus/(deficit)	**(149.4)**	**0**
			TOTAL NET ASSETS	**430.6**	**565**
TOTAL ASSETS	**1,497.5**	**870**	**LIABILITIES AND NET ASSETS**	**1,497.5**	**870**

Table 10.17: Closing balance sheet 20X1 (simplified)

For setting up the statement of financial performance (Table 10.18) and the cash flow statement (Table 10.19), the indications of FP and C in the accounting records can be used to find all relevant transactions. For guidance, also the relevant transactions for setting up the statements are shown in the tables, which is however not needed in real life. From the statement of financial performance, it can be seen that the difference of total revenues and total expenses equals the change in net surplus/(deficit) in the balance sheet. The net decrease in cash and cash equivalents equals the change in cash and cash equivalents between the opening and the closing balance sheet.

	kEUR	Relevant transactions
Revenue from non-exchange transactions		
Taxes	50	9 (50 kEUR)
Property, plant and equipment acquired in non-exchange transactions		
Revenue from exchange transactions		
Revenue from service concession arrangement	25	17 (25 kEUR)
Total revenue	75	
Expenses		
Depreciation and amortisation	68	3 (4 kEUR) 5 (6 kEUR) 6-7 (38 kEUR) 16 (10 kEUR) 17 (10 kEUR)
General expenses	10	16 (10 kEUR)
Salary expenses	36	11 (36 kEUR)
Transfer expenses	69.5	12 (12 kEUR) 13 (50 kEUR) 14 (7.5)
Social benefits	32	15 (32 kEUR)
Interest expenses	8.9	5 (0.2 kEUR) 16 (8.7 kEUR)
Total expenses	224.4	
Net deficit	**(149.4)**	
Surplus attributable to non-controlling interest	**0**	
Surplus attributable to Eucity	**(149.4)**	

Table 10.18: Statement of Financial Performance 20X1[16]

[16] The right column is for reproducibility only; the column is not part of the statement of financial performance.

	kEUR	Relevant transactions
Cash flows from operating activities		
Receipts from taxes	50	9 (50 kEUR)
Receipts from transfers		
Payments to suppliers	(10)	16 (10 kEUR)
Payments for non-exchange expenses	(135.5)	11 (36 kEUR) 12 (11 kEUR) 13 (50 kEUR) 14 (7.5 kEUR) 15 (31 kEUR)
Net cash flows from (used in) operating activities	**(95.5)**	
Cash flows from investing activities		
Purchase of property, plant and equipment	(32)	1 (13 kEUR), 2 (19 kEUR)
Net cash flows from (used in) investing activities	**(32)**	
Cash flows from financing activities		
Cash repayments of amounts borrowed	(30)	16 (8.7 kEUR + 21.3 kEUR)
Net cash flows from (used in) financing activities	**(30)**	
Net increase/(decrease) in cash and cash equivalents	**(157.5)**	
Δ Cash and cash equivalents 20X1 – 20X0	**(157.5)**	117.5-275 kEUR

Table 10.19: Statement of Cash Flows 20X1[17]

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[17] The right column is for reproducibility only; the column is not part of the statement of cash flows. For deriving the cash flow from operations, Eucity chooses the direct method.

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Discussion topics

– Non-cash generating assets vs. cash-generating assets – Implications for accounting
– Differences between cost for acquisition and self-construction
– Challenges in determining the taxable event according to IPSAS 23
– Collective vs. individual services, transfer expenses and social benefits – Implications for accounting
– Performance obligation vs. binding arrangement – Implications for accounting
– Heritage assets vs. natural resources – Implications for accounting

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