IMPLEMENTING IPSAS: A GUIDE FOR TRAINERS

Assets

2024 Edition

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Introduction to Assets

Approach to Assets

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Note that the overview definition and recognition reflect the IPSASB's *Public Sector Conceptual Framework*. The framework does not supersede individual IPSAS. The individual IPSAS may be reflective of the previous asset definition which in substance is not significantly different but does differ in the use of terminology. The IPSAS may be updated at some point in the future in order to be consistent with the framework

Typical Public Sector Assets

- Financial assests (monetary assests)
  - Cash and cash equivalents
  - Revenues receivable
  - Loans and advances receivable
  - Investments and derivatives
- Non-financial assets
  - Physical assets (non-monetary assets)
    - Inventories
    - Property, plant and equipment
  - Intangible assets
    - Computer software

Definition of An Asset

- An **asset** is a resource presently controlled by the entity as a result of past events.
- A **resource** is a right to either service potential or the capability to generate economic benefits, or a right to both.

To meet the objectives of financial statements, users need information about the magnitude of the total resources the government has on hand to meet liabilities as they come due and to deliver future services. The definition identifies the key characteristics of an asset for the purposes of identifying those assets that should be reported by an entity. There are many assets that are not reported by an entity. For example, an entity may have access to water that is critical to its processes, but the water may not necessarily be an asset of the entity.

The definition of an asset can be dissected into its key characteristics.

They Embody Resources

Resources may be financial resources including cash, claims to cash, investments and any other resources that can be used to settle liabilities as they come due or to finance the provision of future goods and services.

Economic resources that arise from contracts and other binding arrangements are unconditional promises and other abilities to require provision of economic resources, including through risk protection.

Resources may also be physical with the ability to generate future net cash flows or that will be consumed in the provision of future service in the normal course of operations. Inventory and items of property plant and equipment are examples of physical resources that may generate future economic benefits or embody future service potential.

Resource may also be intangible resources representing recognizable rights to future economic benefits and service potential. Examples of intangible assets that may be recognized by public sector entities include acquired software or acquired patents and copyrights held by government entities in areas such as tourism, research, education, health, agriculture, and archives.

Assets provide a means for entities to achieve their objectives. A commercial entity holds assets primarily to generate future cash inflows. For commercial entities, the future economic benefit embodied in an asset is the potential for it, either singly or in combination with other assets, to contribute, directly or indirectly, to the future flow of cash and cash equivalents to the entity. The primary goal of a commercial entity is to generate a profit and its resources are employed to that end.

The assets of a government are different from those of a business. Governments provide public services and redistribute wealth for a variety of social and economic purposes. A government's assets generally are used to either discharge liabilities or to provide future services. Such assets can include cash, claims to cash, investments, inventories of supplies, prepaid expenses, and purchased, constructed, contributed, developed or leased tangible capital assets. Most government tangible capital assets represent service capability, rather than future net cash inflows to the government.

A government may also have assets that, similar to a commercial enterprise are used to generate net cash inflows. Some public sector resources generate cash flows because they have user fees associated with them.

To encompass all the purposes to which assets of a public sector entity may be put, IPSAS standards uses both the terms future economic benefits and service potential to describe the essential characteristic of assets. Assets used to generate net cash inflows are described as embodying future economic benefits. Assets used to deliver goods and service, but which do not directly generate net cash inflows, are described as embodying service potential.

Presently controlled by the entity as a result of past events

The criterion used to link a resource to a specific entity is that of control. Control of an asset has two aspects:

- **a)** The entity can use or otherwise benefit from the resource in pursuit of its objectives; and
- **b)** The entity is able to exclude or otherwise regulate the access of others to benefits arising from the resource.

For an asset that is provided for use by the citizenry and general public, control is held by the government that possesses the ability to control access to the present service potential embodied in the asset. This control may be demonstrated, for example, by the ability of the government to determine the level of service the asset will provide, such as setting hours of operation and fee levels for a public park.

Ownership cannot be considered an essential characteristic of an asset because this feature is not always required. While many assets, for example, receivables and property, are associated with legal rights, including the right of ownership, the right of ownership is not essential. For example, property held on a lease is an asset as the entity controls the benefits which are expected to flow from the property.

In addition to being able to access the benefits, the entity is able to exclude or otherwise regulate the access of others to benefits arising from the resource.

In some cases, it is difficult to determine whether a transaction or event creates an item that meets this definition of an asset. Evaluating whether an item meets the definition of an asset may require an assessment of an entity's legal position at the reporting date. An assessment of all available evidence must be made in determining whether the entity has the right or other access to an economic resource that others do not have.

For example, an entity may be pursuing a claim through legal processes, where the outcome is uncertain. At the reporting date, there may be uncertainty about whether an economic resource exists in terms of the outcome of the legal action.

The occurrence of one or more past transactions or other events is considered to be evidence supporting the existence of a present resource. Transactions or events expected to occur in the future do not in themselves give rise to assets. For example, an intention to purchase inventory does not, of itself, meet the definition of an asset.

Although the occurrence of a transaction may not be necessary in order for an asset to exist, transactions generally provide incontrovertible evidence that an asset has been acquired and are the most common basis for recognizing assets. For example, the acquisition of medical equipment normally provides sufficient information to justify the recognition of an asset, and the destruction of a building in a natural disaster leads to de-recognition of that asset.

Every transaction does not result in an asset that is recognized on the statement of financial position. For example, purchase of materials and supplies may result in a resource where the economic benefits or service potential are simultaneously obtained and consumed in current activities. Other examples are certain expenditures on development of intangible items. Such expenditures are expensed in the period in which they are made.

Although many public sector assets result from incurring expenditures, not all assets are the result of expenditures. For example, some significant assets of a government may be natural resources and lands inherited in the right of its sovereign powers (e.g. sequestration) and have not been purchased.

Asset Recognition Criteria

- An item that meets the definition of an asset should be recognized if:
  - It is probable that any future service potential or economic benefit associated with the asset will flow to the entity; and
  - The item can be measured reliably

Once it is determined that a resource meets the definition and has the key characteristics of an asset, a determination must be made of whether the recognition criteria are met. Recognition is the process of including an item in the financial statements of an entity by the addition of the amount involved into totals on a financial statement together with a narrative description of the item (for example, receivables, user fees, grants). It does not mean disclosure in the notes to the financial statements. Notes either provide further details about items recognized in the financial statements, or provide information about items that do not meet the criteria for recognition and thus are not recognized in the financial statements. Whether a particular item is recognized or not will require the application of judgment in considering materiality and whether the specific circumstances meet the recognition criteria.

The concept of **probability** is used in the recognition criteria to refer to the degree of uncertainty that the future economic benefits associated with the asset will flow to the entity. The concept is in keeping with the uncertainty that characterizes the environment in which an entity operates. “Probable” means that an inflow of resources is more likely than not to occur

That is, the probability that the event will occur is greater than the probability that it will not.

The degree of probability attached to an asset (inflow of resources) is determined on the basis of all available evidence at the reporting date. The evidence considered includes any additional evidence provided by events after the reporting date. For example, an entity has an account receivable at the reporting date for income taxes even though taxpayers have not filed tax returns. It is probable, based on past experience, that taxes are owed by taxpayers.

An item may not be recognized in the financial statements because a reasonable estimate cannot be made of the amount involved. In such cases there may be difficulties in obtaining reliable measurements of assets. In the example above, it may not be possible to reliably measure the amount of taxes due at the reporting date until payment is received or receivable. If a payment is received subsequent to the reporting date, it may be possible to recognize the asset at the reporting date. (See IPSAS 14, *Events after the Reporting Date*).

Just because an estimate is involved, does not mean the measurement is unreliable. Due to the nature of financial statements, estimates are commonly involved in their preparation. For example, the estimation of taxes receivable may be based on the use statistical models that use data on the historical pattern of collecting a particular tax in prior periods, consideration of the timing of cash receipts from taxpayers, declarations made by taxpayers, and the relationship of taxation receivable to other events in the economy. Measuring assets and revenue arising from taxation transactions using statistical models may result in the amount of assets and revenue recognized being different from the actual amounts determined in subsequent reporting periods. This does not make the reported amount any less reliable. Revisions to estimates are made in accordance with IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors.*

For assets that are acquired, the transactions are generally initially recognized in financial statements at the amount of cash or cash equivalents paid or received or the fair value or current operational value ascribed to them when they took place. However, some significant assets of a government are not acquired. For example, lands that have been inherited due to the sovereign rights of a government may be difficult to measure.

When a reasonable estimate cannot be made, the item is not recognized in the financial statements. For example, the expected proceeds from a lawsuit may meet the definitions of both an asset and income as well as the probability criterion for recognition; however, if it is not possible for the claim to be measured reliably, it should not be recognized as an asset or as income.

Is a Road an Asset?

- A public sector entity owns and maintains a network of roads in its jurisdiction.
- The residents and general public have access to the roads for their general use.
- Are the roads an asset of the public sector entity? Why or why not?

Answer:

The answer seems intuitive; however, there is an argument that roads are not assets of the public sector entity because the users of the roads realize the economic benefits embodied in them, not the public sector entity. That is, the financial and non-financial benefit provided by the asset accrues to the wider community. Additionally, the public sector entity cannot restrict access to the asset because, in most cases, residents and the general public have free access.

Roads satisfy the definition of an asset. The roads are resources of the public sector entity that it uses to meet its objectives of providing transportation services. The public sector entity can control access for example, by requiring vehicles to be licensed. It can regulate use of the roads such as placing weight restrictions on vehicles using the roads, etc.

Is the Convention Center an Asset?

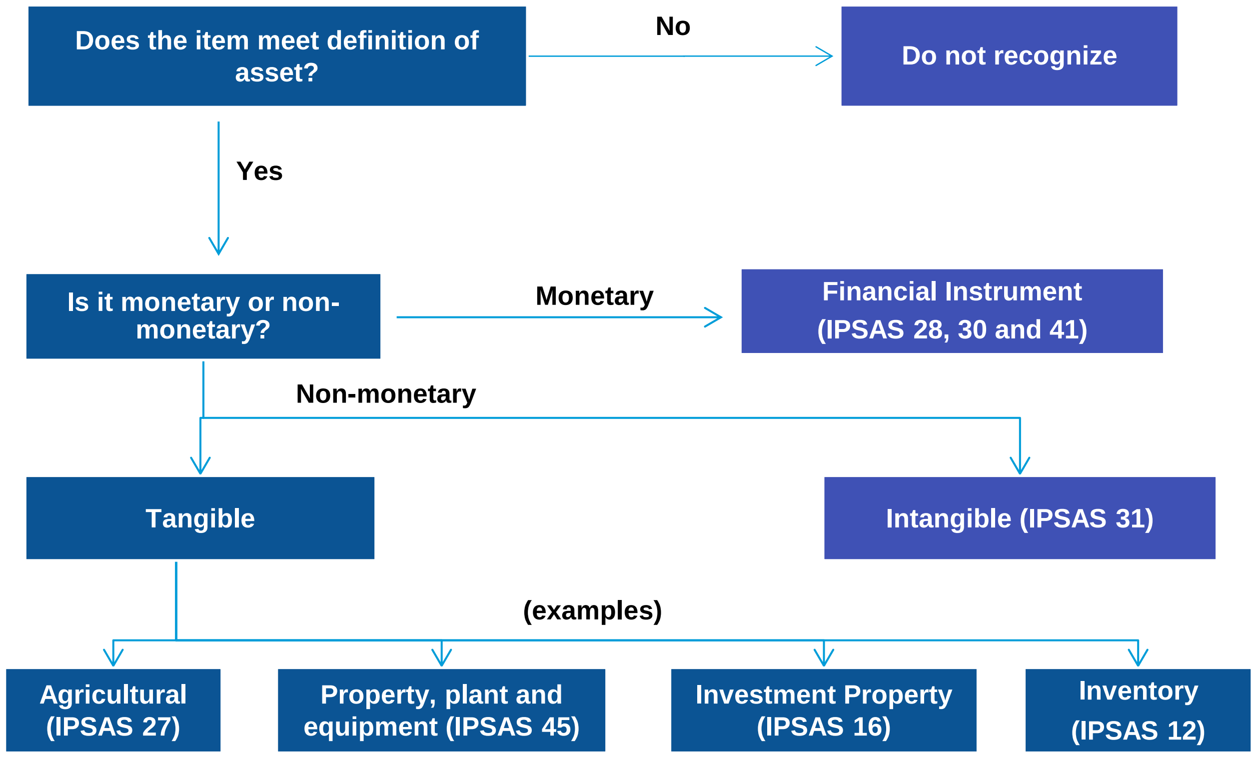
Scenario:

- A senior level of government has constructed and maintains a convention center within the boundaries of a local government. The local government benefits from the economic activity generated by the center through increased property assessments and higher tax revenues.
- Should the local government report the convention center as an asset? Why or why not?

Answer:

The convention center fails the test of being an asset of the local government. The local government does not control the benefits that may be derived from the convention center. It does not have rights or other access to determine the nature and manner of use of the convention center to meet its objectives. The senior level of government controls the access to the asset. It determines the operating policies of the convention center. For example, it can set the fees for use and determine to whom it will lease the facilities.

Decision Tree



Consider the item in the context of the definition of an asset as set out. If it does not meet the definition, then nothing further is required.

If the item meets the definition of an asset then you will need to determine the appropriate IPSAS to use in recognizing the asset in the financial statements.

Monetary assets versus non-monetary assets – Monetary assets are units of currency and other assets to be received in fixed or determinable units of currency (cash, accounts and loans receivable, temporary investments). All other assets are non-monetary.

Monetary assets are accounted for using IPSASs 28, 30 and 41 on Financial Instruments. Remaining assets are split between tangible assets and intangible assets. Tangible assets have physical substance. Examples include inventories and property plant and equipment. Intangible assets lack physical substance. Many of these assets will be addressed later in this module.

Valuation Options on Initial Recognition

- Property, plant and equipment at historical cost or current value as deemed cost
- If historical cost chosen, if available use it
- If not, must use alternative valuation methods
- Historical cost less residual value is amortized from the date of acquisition
- External auditors should be consulted on whatever method is chosen

An entity that adopts accrual accounting for the first time in accordance with IPSAS should initially recognize property, plant, and equipment at historical cost or use its current value as a deemed cost.

Where historical cost is the valuation method adopted, but such information is not available for each asset, alternative initial valuation techniques are normally required to determine opening balances. This is often the case for items of property, plant and equipment.

Assets must also be assessed for any indications that the asset may be impaired. *See the discussion on impairment later in this module.*

If historical cost is available, use it.

Valuation of long lived assets such as property, plant and equipment may present some unique challenges. IPSAS 33, *First-time Adoption of Accrual Basis International Public Sector Accounting Standards (IPSASs)*, and IPSAS 46, *Measurement*, provide guidance on the amount to be recognized initially where the historical cost is not known.

If an entity chooses to use cost, and historical cost is available, use it. If historical cost records are not available for each asset, the application of other valuation techniques is required to estimate the historical cost. This is often the case for items of property, plant and equipment which have been expensed under a cash basis of accounting.

Where historical cost records are not available, guidance is provided in IPSAS 46 (see Module 10).

The resultant estimated historical cost less residual value is amortized from the date of acquisition to the current date to reflect the remaining useful life of the asset.

It would be prudent to obtain the views of the external auditors on the use of alternate valuation methods beforehand.

Entities will also need to ensure that their application of an alternative valuation method is in accordance with IPSAS 33 and IPSAS 46.

Property, Plant and Equipment

This module focuses on the requirements of *IPSAS 45, Property, Plant and Equipment*. IPSAS 45 was issued in May 2023, and replaces IPSAS 17, *Property, Plant, and Equipment*. IPSAS 45 is effective for periods beginning on or after January 1, 2025, with earlier application permitted. Entities that are adopting accrual accounting are strongly advised to adopt IPSAS 45 immediately, to avoid the need to transition from IPSAS 17 at a later date. For any entities that are already in the process of adopting IPSAS 17, the differences between the requirements in IPSAS 45 and those in IPSAS 17 are set out in boxes throughout this module.

Public sector entities use their capital assets to deliver services over the course of many years. The capital assets of public sector entities are generally used to provide services and, unlike the commercial sector, do not normally generate cash flows that can be used to discharge liabilities.

The principal reason for governments recording capital assets is to get a better appreciation of the stock and the cost of using these assets, which should lead to an improved decision-making process regarding their management. But reporting this capital asset information also provides accountability to taxpayers regarding the capital resources acquired, used and managed by public sector bodies.

Public sector entities are responsible for the management of a diverse range of property, plant and equipment assets. Typical items can include:

- Buildings and equipment (e.g. administrative, education, health care, police and fire facilities, moveable equipment)
- Infrastructure (roads, bridges, dams, utility systems, solid waste disposal, sewage treatment, mass transit, other essential infrastructure)
- Communication and computer networks

Public sector entities are increasingly facing major challenges financing deferred maintenance, renewal and replacement of aging property, plant and equipment. This may be an indicator that decision makers have not received sufficient information to understand the financial effects of past funding decisions on the condition of existing capital assets and the cost of using them in service provision.

This is not to say that public sector entities have not been maintaining information about these assets to properly manage them. Asset management systems have been developed but those systems are often specialized in nature and exist independently of the core financial systems.

To ensure the most effective and efficient public services; to realize the best value for resources invested; and to achieve a sustainable essential infrastructure, public sector entities need reliable information about the items that comprise property, plant and equipment.

Financial reporting does not provide all the information required to effectively manage these assets. It is a base upon which asset management can build to ensure efficiency and effectiveness. One of the main benefits of adopting accrual accounting is better information for management decision making purposes.

The principal issues in accounting for property, plant, and equipment are:

a) The application of the general recognition criteria to items that are property, plant and equipment;

b) The determination of the carrying amount of property, plant and equipment; and

c) The depreciation charges and impairment losses to be recognized in relation to the use of property, plant and equipment.

Definition of Property, Plant, and Equipment (PP&E)

- Property, Plant, and Equipment are tangible items that:
  - Are held for use in the production or supply of good or services, for rental to others, or for administrative purposes; and
  - Are expected to be used during more than one reporting period.
- Weapons systems and infrastructure assets meet the definition
- Tangible heritage assets meet the definition

Specialist military equipment will normally meet the definition of property, plant and equipment, and should be recognized as an asset in accordance with IPSAS 45.

Infrastructure assets meet the definition of property, plant, and equipment and should be accounted for in accordance with IPSAS 45. Examples of infrastructure assets include road networks, sewer systems, water and power supply systems, and communication networks.

These assets usually have the following characteristics:

a) They are networks or systems; and

b) They have long useful lives.

Heritage assets that meet the definition of property, plant, and equipment should be accounted for in accordance with IPSAS 45. When heritage assets cannot be reliably measure, it will be necessary to disclose information about the asset. The characteristics of heritage assets are discussed later in this module.

Entities usually intend to hold heritage assets for long periods and preserve them for the benefit of present and future generations. Heritage assets have cultural, environmental, or historical significance that is worth preserving perpetually. Examples of heritage assets include historical buildings, monuments, museum collections, and works of art.

IPSAS 17 permitted but did not require heritage assets to be recognized as property, plant and equipment. IPSAS 45 requires recognition where it is possible to reliably measure the asset. Entities that have elected not to recognize heritage assets as property, plant, and equipment under IPSAS 17 will need to recognize those assets under IPSAS 45 to the extent that they can be reliably measured. Where cost information is not available, heritage assets can be recognized at deemed cost (see IPSAS 46, *Measurement*, covered in Module 10 *Other Pronouncements*).

Scope Limitations

- Does not apply to:
  - Biological assets related to agricultural activity
  - Mineral reserves such as oil, natural gas and similar non-regenarative resources
  - Property, plant, and equipment classified as held for sale (see IPSAS 44, N*on-current Assets Held for Sale and Discontinued Operations*
  - The recognition and measurement of exploration and evaluation assets

A biological asset is a living animal or plant. Generally biological assets are related to agricultural activity.

These are dealt with in IPSAS 27, *Agriculture*. However, a biological asset could also exist outside agricultural activities. For example, a police department may use police dogs in a canine unit.

IPSAS 45 does apply to PP&E used to develop and maintain biological assets and mineral reserves.

> The scope exclusions for non-current assets held for sale and for exploration and evaluation assets were introduced in IPSAS 45. Such items would be recognized under IPSAS 17; however, non-current assets held for sale will be outside the scope of IPSAS 17 where an entity has adopted IPSAS 44 early, prior to adopting IPSAS 45, and therefore continues to apply IPSAS 17 to property, plant and equipment.

Recognition Principle

- The cost of an item of property, plant, and equipment shall be recognized as an asset if, and only if:
  - It is probable that future service potential or economic benefits associated with the item will flow to the entity; and
  - The item can be measured reliably.

The general asset recognition principles apply equally for property, plant and equipment as any other asset.

IPSAS 45 requires an entity to apply the general asset recognition principle to all property, plant and equipment costs at the time they are incurred, including initial costs and subsequent expenditures. These costs include costs incurred initially to acquire, construct, or develop an item of property, plant, and equipment and costs incurred subsequently to add to, replace part of, or service it.

Where an entity does not have information about the cost of an item, it may recognize it at deemed cost (see IPSAS 46, *Measurement*, covered in Module 10).

Subsequent costs

Repairs and maintenance

Under the recognition principle, the carrying amount of an item of property, plant, and equipment does not include the costs of the day-to-day servicing of the item. These expenditures would not meet the recognition criteria as they would not result in service potential or economic benefits flowing to the entity. Rather, these costs are recognized in surplus or deficit as incurred. Costs of day-to-day servicing are primarily the costs to maintain the service potential of the item of property, plant and equipment. The purpose of these expenditures is often described as for the “repairs and maintenance” of the item of property, plant, and equipment.

Replacement of components

Parts of some items of property, plant, and equipment may require replacement at regular intervals. For example, a road may need resurfacing every few years, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe. Items of property, plant, and equipment may also require less frequent recurring replacement, such as replacing the interior walls of a building. An entity recognizes the costs of replacements in the carrying amount of an item of property, plant, and equipment when incurred if the recognition criteria are met.

IPSAS 45 requires an entity to derecognize the carrying amount of a part of an item of property, plant and equipment if that part has been replaced and the entity has included the cost of the replacement in the carrying amount of the item.

Cost of major inspections

A condition of continuing to operate an item of property, plant, and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognized in the carrying amount of the item of property, plant, and equipment as a replacement if the recognition criteria are satisfied. Any remaining carrying amount of the cost of previous inspection (as distinct from physical parts) is derecognized. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the item was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired, constructed or developed.

Subsequent Costs on Unrecognized Heritage Property, Plant, and Equipment

Subsequent expenditure on heritage property, plant, and equipment is recognized in accordance with the recognition principle. Recognition of such subsequent expenditure as an asset is unaffected by whether or not the underlying heritage asset was initially recognized. If the subsequent expenditure relates to a heritage asset that was not recognized initially, because its cost or current value could not be measured reliably, it should nonetheless be reviewed to determine whether or not it meets the recognition principle and should be recognized as an asset.

Recognition Issues Example

- A municipality has spent CU 12 million to install equipment at its water treatment facility to meet new provincial water quality regulations. The equipment has had no effect on the quality and volume of the water treated or the expected life of the treatment plant.
- Should the expenditure be capitalized as PP&E? Explain

Answer:

The expenditure does not strictly meet the recognition criteria. The equipment required to comply with water quality standards does not provide future economic benefits or service potential. However, it is appropriate to treat the upgrade as PP&E.

Although equipment does not directly embody future economic benefits or service potential, it is necessary for a municipality to obtain future economic benefits or service potential from its water treatment plants.

Items of property, plant, and equipment may be required for safety or environmental reasons. The acquisition of such property, plant, and equipment, although not directly increasing the economic benefits or service potential of any particular existing item of property, plant, and equipment, may be necessary for an entity to obtain the economic benefits or service potential from its other assets. Such items of property, plant, and equipment qualify for recognition as assets.

For example, fire safety regulations may require a hospital to retrofit new sprinkler systems. These enhancements are recognized as an asset because, without them, the entity is unable to operate the hospital in accordance with the regulations.

However, the resulting carrying amount of such an asset and related assets is reviewed for impairment in accordance with IPSAS 21, *Impairment of Non-Cash- Generating Assets*.

Other Recognition Issues

- Spare parts and servicing equipment
- Major parts, and standby equipment
- Aggregation of items

Spare parts and servicing equipment are usually carried as inventory and recognized in surplus or deficit as consumed. However, major spare parts and stand-by equipment qualify as property, plant, and equipment when an entity expects to use them during more than one period. Similarly, if the spare parts and servicing equipment can be used only in connection with an item of property, plant, and equipment, they are accounted for as property, plant, and equipment.

The aggregation of individually insignificant items for recognition is permitted by the standard.

Certain items such as tools, furniture and desktop computers might be below the capitalization threshold individually but are typically purchased or held in large quantities so as to represent significant expenditures overall. IPSAS 45 does not prescribe the unit of measure for recognition, i.e., what constitutes an item of property, plant, and equipment. Thus, judgment is required in applying the recognition criteria to an entity's specific circumstances. It may be appropriate to (a) disaggregate individually significant items, such as floors of a building, into separate units of account when the objective for which the entity holds the building is both for operational and financial capacity or (b)aggregate individually insignificant items, such as library books, computer peripherals, and small items of equipment, and to apply the criteria to the aggregate value.

Entities may wish to consider the use of aggregation in instances when a class of property, plant and equipment is made up of a large number of individual homogeneous items that individually exceed capitalization thresholds. It may reduce the prohibitive administrative costs to separately track and account for each acquisition and disposal transaction.

In these cases, an entity aggregates the cost of the individual items for a fiscal period. The total additions are recorded and depreciated over the applicable estimated useful life. The asset is deemed to have been disposed of at the end of the last year of its estimated useful life.

For example, a government has a large number of culverts in its roads network. It budgets annually to replace culverts on a ten year cyclical basis. The government capitalizes the costs of culverts replaced in any one fiscal period in aggregate. It depreciates the culverts over the ten year useful life. The culverts are deemed to have been disposed of at the end of the ten years. Even though some culverts may need to be replaced before and some after their expected useful life, on average, the amount recognized will not result in a material misstatement.

Another example might be beds in a hospital.

Recognition Examples

- **Scenario 1 -** A hospital has installed two identical back- up generators to provide electric power when there is a power disruption. The second generator will be used in the unlikely event that the first generator fails.
- **Scenario 2 -** A local government maintains a supply of spare backup electric motors in its water treatment plant. The motors are readily available from suppliers in the market.
- **How should the costs be recognized under each scenario? Why?**

Answer:

Scenario 1 - Both back-up generators are items of property, plant and equipment. Both are expected to be used, although irregularly, during more than one period. Major spare parts and stand-by equipment qualify as property, plant, and equipment when an entity expects to use them during more than one period.

Scenario 2 - It depends! Professional judgment would have to be exercised in determining the appropriate accounting treatment. Generally, spare parts and servicing equipment are carried as inventory and expensed in surplus or deficit as consumed except when the items meet the definition of PP&E and are significant or the items can only be used in connection with an another item of property, plant and equipment. In this latter case, they are capitalized.

In this case, since the electric motors are commonly available in the market, they could be recognized as inventory and expensed in surplus or deficit as consumed. Alternatively, if it is determined that they satisfy the definition of PP&E, are significant or can only be used in connection with the water treatment plant, they could be capitalized.

Initial Measurement

- An item of PP&E that qualifies for recognition as an asset is measured at its cost
- Elements of cost includes
  - Purchase price (including import duties/taxes net of trade discounts and rebates)
  - Costs directly attributable
  - Estimate of obligations associated with retirement, disposal or abandonment
- An item acquired in a non-exchange transaction is measured at its deemed cost. Deemed cost is measured by applying IPSAS 46, *Measurement*

An item of property, plant, and equipment that qualifies for recognition as an asset should be measured at its cost. The cost of an item of property, plant, and equipment is the cash price equivalent.

One or more items of property, plant, and equipment may be acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets. Such situations are more likely to happen in the commercial sector than in the public sector given the nature of the assets held by the public sector and their primary objective of service potential. If a situation is encountered, the item is generally initially recognized at the current value of the asset given up (plus monetary consideration). Depending on the circumstances, the item could also be measured at the current value of the item received or the carrying amount of the item given up. The requirements for measuring an item of property plant and equipment in non-monetary transactions are complex and beyond the scope of this training material. If participants run across a situation, they should refer directly to IPSAS 45 for guidance.

If payment is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is normally recognized as interest over the period of credit. Alternatively, such interest could be recognized in the carrying amount in accordance with the allowed alternative treatment in IPSAS 5, *Borrowing Costs*. IPSAS 5 is covered *later* in the material.

The elements of cost of an item of property, plant, and equipment are:

a) Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.

b) Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

c) The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired, or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

Directly attributable costs of an acquired, constructed, or developed asset are incremental costs that would not have been incurred other than to acquire, construct or develop the asset. They are incurred to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended.

Such costs include costs of employee benefits directly arising from the construction, acquisition or development of an item of property, plant and equipment; site preparation costs; initial delivery and handling costs; installation and assembly costs; costs of testing whether the asset is functioning as intended; and professional fees.

Common examples for an internally constructed asset include direct internal employee salaries and benefits, materials and supplies, equipment, temporary site buildings, legal and other professional fees, etc.

Costs that would not be considered directly attributable would be those that would be incurred by an entity whether or not the acquisition, construction, or development project is undertaken. Examples of costs that would not be considered directly attributable would include an allocation of administration and other general overhead costs (e.g. occupancy costs or costs of corporate functions such as human resources, legal, purchasing and accounting); costs of opening a new facility, etc.

Recognition of costs in the carrying amount of an item of property, plant, and equipment ceases when the item is ready for use in producing goods or services. An asset is normally ready for productive use when the acquisition, construction or development is substantially complete. Determining when an asset, or a portion thereof, is ready for productive use requires consideration of the circumstances in which it is to be operated. Normally it would be predetermined by the entity by reference to factors such as productive capacity, occupancy level, or the passage of time.

A public sector entity may incur an obligation as a result of the acquisition, construction, development or normal operation of an item of property, plant and equipment associated with its disposal, retirement or abandonment.

IPSAS 12 applies to the obligations for dismantling, removing and restoring the site on which an item is located that are incurred during the period of using the item to produce inventories.

A liability resulting from improper operations is not an element of the cost of property plant and equipment. A liability, for example environmental cleanup, resulting from improper operation of an item of property, plant and equipment do not represent costs that are an integral part of an item of property plant and equipment.

For example, a certain amount of spillage may be inherent in the normal operations of a fuel storage facility, but a catastrophic accident caused by non- compliance with an entity's safety procedures is not. The obligation to clean up after the catastrophic accident does not result from the normal operation of the facility.

A provision for an environmental remediation liability that results from the normal operation of an item of property, plant and equipment and that is associated with the retirement of that asset is accounted for under as an element of cost.

The obligations are recognized and measured in accordance with IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*, which will be discussed later in the course.

Where an asset is acquired through a non-exchange transaction, its cost shall be measured at its deemed cost. For example, land may be contributed to a local government by a developer at no or nominal consideration, to enable the local government to develop parks, roads, and paths in the development. An asset may also be acquired through a non-exchange transaction by the exercise of powers of sequestration. Under these circumstances, the item is measured at its deemed cost.

The deemed cost of an item of property, plant, and equipment is determined by applying IPSAS 46, *Measurement*. Deemed cost is defined as "an amount used as a surrogate for transaction price at the measurement date." Deemed cost is intended to reflect how the asset is used by the entity. Consequently:

- Deemed cost is measured at current operating value where property, plant and equipment is held for its operational capacity.
- Deemed cost is measured at fair value where property, plant, and equipment is held for its financial capacity.

For further details about measuring fair value and current operational value, refer to IPSAS 46, which is covered in Module 10, *Other Pronouncements*).

The measurement of an item of property, plant, and equipment, acquired at no or nominal cost, at its deemed cost does not constitute a revaluation. Accordingly, the revaluation requirements under the revaluation model in IPSAS 45 and the supporting commentary on revaluation only apply where an entity elects to revalue an item of property, plant, and equipment in subsequent reporting periods.

IPSAS 17 was issued prior to IPSAS 46 and therefore does not refer to the measurement bases introduced in the later Standard. Consequently, IPSAS 17 requires items of property, plant, and equipment received in a non-exchange transaction to be measured at fair value as at the date of acquisition. Similarly, property, plant, and equipment acquired in exchange for a non-monetary asset or assets is measured at either the fair value of the asset given up or the fair value of the asset received. IPSAS 17 also includes guidance on assessing fair value (which was defined as "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction." This is different to the current definition of fair value in IPSAS 46).

Under IPSAS 17, the cost of an item of property, plant, and equipment held by a lessee under a finance lease is determined in accordance with IPSAS 13, *Leases*. IPSAS 43, *Leases*, which replaces IPSAS 13, introduces the concept of a right-of-use asset, and removes the concept of finance leases for lessees. IPSAS 43 addresses the accounting for right-of-use assets; IPSAS 43 is covered later in this Module. As entities are not permitted to adopt IPSAS 45 prior to IPSAS 43, IPSAS 45 does not address items held by a lessee under a finance lease.

Measurement Example

- A municipality has acquired land and a building to be develop into a parking structure. The building is to be demolished.
  - How would the acquisition be accounted for? Explain
- The property is used temporarily for surface parking pending construction.
  - Is the surface parking operation part of the cost of the new parking structure? Explain

Answer:

An item of property, plant, and equipment that qualifies for recognition as an asset should be measured at its cost. The elements of cost of an item of property, plant, and equipment comprises its purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

The demolition of the building would be considered costs of bringing the land to condition for its intended use and included in the carrying amount of the land.

Some operations occur in connection with the construction or development of an item of property, plant, and equipment, but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management.

These incidental operations may occur before or during the construction or development activities. Because incidental operations are not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, the revenue and related expenses of incidental operations are recognized in surplus or deficit, and included in their respective classifications of revenue and expense.

After initial recognition, an entity should choose either the historical cost model or the current value model as its accounting policy, and should apply that policy to an entire class of property, plant, and equipment.

Measurement After Initial Recognition

- **Historical Cost Model -** property, plant, and equipment is carried at its historical cost, less any accumulated depreciation and any accumulated impairment losses.
- **Current Value Model -** property, plant, and equipment whose current value can be measured reliably is carried at a revalued amount, being its current operational value or fair value at the date of the revaluation, less any subsequent accumulated depreciation, and subsequent accumulated impairment losses.

The current value model is an allowed alternative treatment. After initial recognition of an asset, the current value model can only be applied where the current operational value or the fair value of an item of property, plant, and equipment can be measured reliably. IPSAS 46 provides more details on measuring current operational value and fair value.

An entity does not have to apply the models consistently across all classes of property, plant and equipment. For example, an entity could choose to use the historical cost model for its moveable equipment because it turns over on a reasonably short time period. It could choose to use the current value model for infrastructure assets because of their long expected life and significance. IPSAS 45 provides guidance on classes of property plant and equipment.

When the current value model is used, the measurement basis used to measure current value, can be either current operational value or fair value. This should be applied consistently to an asset at each measurement date, unless the primary objective for which the entity holds an asset has changed. In that case, a change in the current value measurement basis, from current operational value to fair value, or vice versa, may be appropriate.

Revaluations need to be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using current value at the reporting date

Under IPSAS 17, the models were the cost model (which is the same as the historical cost model under IPSAS 45) and the revaluation model. The revaluation model is similar to the current value model in IPSAS 45, but required the revaluation amount to be based on the fair value of the asset (using the previous definition of fair value). The selection of current value measurement basis (current operational value or fair value) does not arise under IPSAS 17.

Comparison of Models

	Historical Cost Model	Current Value Model
Initial Recognition	Cost (cash price equivalent) or deemed cost at date of acquisition	
Subsequent	Original cost	Current operational value or fair value at date of revaluation
Carrying Amount	Original cost less accumulated depreciation and impairment losses since recognition	Revalued amount less accumulated depreciation based on revalued amount and impairment losses subsequent to revaluation date

The current value model is not covered in depth in this material because of the complexity of the accounting is beyond its scope. In addition, public sector entities and commercial enterprises predominantly use the historical cost model because of its reliability, understandability, simplicity and cost effectiveness from an accounting perspective.

However, if your public sector entity chooses to use the current value model, reference should be made directly to IPSAS 45.

Under both models an item of property, plant, and equipment that qualifies for recognition as an asset is measured at its cost in accordance with IPSAS 45. Cost is the normally the cash price equivalent or, for an item acquired through a non-exchange transaction, deemed cost (either current operational value or fair value) at the recognition date.

Under the historical cost model, the original cost is carried forward and the carrying amount is original cost less accumulated depreciation and impairment losses.

Under the current value model, the item is measured at current operational value (for assets held for their operating capacity) or fair value (for assets held for their financial capacity) and the carrying amount is the revalued amount less subsequent accumulated depreciation (depreciation is based on the revalued amount at the date of revaluation) and subsequent impairment losses.

At the date of revaluation, the carrying amount of the asset is equal to its current operational value or fair value and a gain (directly through net assets/equity) or loss (either through net assets/equity or surplus or deficit depending on circumstances) is recognized.

Under IPSAS 17, the models are called the cost model and the revaluation model. For both models, initial recognition is at cost (cash price equivalent) or fair value (using the previous definition of fair value). Under the revaluation model, the revalued amount is based on fair value (again using the previous definition).

Pros and Cons of Current Value Model

Advantages	Disadvantages
Provides more relevant information	Administrative costs
Depreciation reflects true cost of using assets	Complex ongoing accounting adjustments
Provides better information for accountability and decision making	Volatility in reported results
Improves asset management	Revalued amounts are not renewal costs required to sustain service levels

The following table summarizes some of the major arguments, both pro and con for the adoption of the revaluation model.

Pros	Cons
Current value model provides more relevant information for management and decision making as it reflects the current value of long-lived assets rather than original cost.	Costs of undertaking valuations and tracking changes in value.
Depreciation based on current values of assets better reflects the true cost using assets particularly long-lived assets.	Current value accounting is more complex resulting in the need for ongoing tracking of account adjustments.
Provides better information for assessing accountability and decision making.	Results in volatility in reported results as the amount of revalued assets fluctuate overtime.
Carrying long lived assets at revalued amounts improves management leading to adequate reinvestment and renewal.	Revalued amounts may not be the same as asset renewal costs required to sustain service levels.

Arguments for Current Value Model

Public sector entities are capital intensive and many of their assets are long lived so revaluing assets provides more relevant information about the investment in property plant and equipment.

Those that promote the use of the current value model argue activities of most public sector bodies are capital intensive and they hold significant long-lived infrastructure assets such as roads, water, sewerage and drainage assets.

Basing depreciation on historical costs of long-lived assets does not reflect the true costs on using those assets.

Public sector entities have failed to reinvest in or continually renew the infrastructure asset base. A contributing factor is the reporting of long-lived assets at cost, thereby understating their values. As a consequence, depreciation charges are understated relative to current cost. Decision makers do not understand the true costs of services. Recording depreciation based on original cost masks real operating deficits. This results in public sector entities not budgeting to recover the real depreciation charges in full. This has contributed to inadequate reinvestment in asset renewal.

The current value model provides more relevant information for accountability and decisions involving the allocation of resources.

The current value model will improve the accuracy of financial reporting relating to infrastructure and will assist in providing more meaningful information for decision makers and stakeholders.

Revaluation promotes asset management leading to adequate reinvestment and renewal of assets to maintain service levels.

Arguments against Current Value Model

The current value model requires ongoing revaluation of assets which depending on the nature of the asset can be expensive.

The current operational value or fair value of items of property is usually determined from market-based evidence by appraisal. An appraisal of the value of an asset is normally undertaken by a member of the valuation profession, who holds a recognized and relevant professional qualification. For some public sector assets, it may be difficult to establish their market value because of the absence of market transactions for these assets, and measuring current operational value in the absence of a market value can be complex. Some public sector entities may have significant holdings of such assets.

For example, infrastructure assets such as roads, water, sewer and drainage systems, transportation networks, etc. will be difficult to revalue because relevant market information will be scarce. Few systems of similar scale are rarely held by private sector entities and rarely traded.

The current operational value of an asset should be established using the cost approach when no active market for similar or identical assets exists. The more specialized the asset, the less likely an active market exists and the more likely the cost approach will need to be applied. Guidance on measuring the current operational value of specialized assets where there is no market-based evidence of value is included in IPSAS 46, *Measurement*.

If an item of property, plant, and equipment is revalued, the entire class of property, plant, and equipment to which that asset belongs is revalued. The items within a class of property, plant, and equipment are revalued simultaneously in order to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates.

Required frequency of revaluations will be a factor in the costs of adopting the revaluation model. IPSAS 45 does not stipulate the frequency of revaluations. The frequency of revaluations depends upon the significance of the asset and volatility of changes in fair value. Frequency in these cases could be annual. In other cases, the revaluation may be required every three or five years.

Current value accounting is complex and requires tracking of changes in value over the life of the asset.

Remeasurement of assets can create volatility in both financial position and performance as asset values fluctuate over time. Depreciation expense is based on revalued amounts.

This may cause volatility in results if asset values change significantly.

The current value model may be mistaken or confused with asset renewal. Opponents of the current value model argue that depreciation is an accounting concept that allocates the cost of an asset to operations as it is consumed and does not reflect the amount required for renewal or replacement.

Those that argue against the current value model argue that the financial reporting of asset consumption (depreciation) is often confused with asset renewal. Depreciation is used to allocate cost whether based on actual cost or revalued amount, over the life of the asset. Depreciation expense reports the consumption of future economic benefits or service potential from past investments in property, plant and equipment.

The cost reported in financial statements is the cost required to place the asset in service or, for revalued assets, the current cost of an equivalent asset that will provide the same level of service.

Asset renewal planning based on using annual depreciation expense is flawed. It provides no information for planning purposes. It does not take into account estimated renewal costs or timing of cash flow required for provision of services in the future. It overstates the amount of renewal costs in the early years and encourages unnecessary renewal spending. At the same time, it under-estimates the amount of renewal funding in later years and fails to indicate the funding levels needed to ensure service levels remain functional (e.g. considering need for expansion).

The current value amount of an asset may be different from the renewal amount because of things like technological change, changing standards and service levels.

IPSAS 17 uses a revaluation model rather than a current value model. The arguments for and against the revaluation model are essentially the same as for the current value model, although the use of current operational value is not permitted under IPSAS 17.

Depreciation

- All PP&E with a finite useful life is subject to depreciation
    - Rebuttable presumption that non-land items of PPE have a finite useful life
- The depreciable amount of an asset is expensed on a systematic basis over its useful life to surplus or deficit for each period unless it is recognized in the carrying amount of another asset
- Depreciation begins when an asset is in operation
- Depreciation ends at the earlier of when an asset is classified as held for sale or derecognized
- Reviewed at each annual reporting date
- Each significant component is depreciated separately

Useful life is:

- The period over which an asset is expected to be available for use by an entity; or
- The number of production or similar units expected to be obtained from the asset by an entity.

The depreciation charge for a period is usually recognized in surplus or deficit. However, sometimes, the future economic benefits or service potential embodied in an asset is absorbed in producing other assets. In this case, the depreciation charge constitutes part of the cost of the other asset, and is included in its carrying amount. For example, the depreciation of construction equipment used to build a road would be included in the cost of the road asset. Similarly, depreciation of plant, property and equipment used to produce inventory is a cost of conversion recognized in the cost of inventory in accordance with IPSAS 12.

The ***depreciable amount*** is the cost of an asset, or other amount substituted for cost, less its residual value.

The ***residual value*** of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

The residual value and the useful life of an asset should be reviewed at least at each annual reporting date and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors.* In practice, the residual value of an asset is often insignificant, and therefore immaterial in the calculation of the depreciable amount.

Useful lives can be finite or indefinite (which is not the same as infinite). An entity will need to assess whether the useful life of property, plant, and equipment is finite or indefinite and, if finite:

- The length of that useful life; or
- The number of production or similar units constituting that useful life.

Land usually has an indefinite useful life. There is a rebuttable presumption that non-land property, plant, and equipment have finite useful lives. Property, plant, and equipment should be regarded by the entity as having an indefinite useful life when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to provide service potential to, or be used to generate net cash inflows for the entity. This may apply, for example, to some heritage items as well as to land.

An item of property, plant, and equipment with a finite useful life is depreciated. An item of property, plant, and equipment with an indefinite useful life is not depreciated.

Depreciation of an asset begins when it is available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale and the date when the asset is derecognized. Therefore, depreciation does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated. Further details on when an asset should be classified as held for sale can be found in *IPSAS 44, Non-current Assets Held for Sale and Discontinued Operations*, which is covered in Module 8.

The systematic allocation of the cost of an asset is reflected in the choice of depreciation method. A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight- line method, the diminishing balance method, and the units of production method. The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits or service potential embodied in the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits or service potential.

The residual value and the useful life of an asset as well as the depreciation method applied to an asset should be reviewed at least at each annual reporting date. If there has been a significant change in the expectations, the effect of changes is recognized in depreciation expense for the current period and for each future period over the assets remaining life in accordance with IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors.*

Each component of an item of property, plant and equipment that is significant in relation to the total cost of the item is depreciated separately.

An entity allocates the amount initially recognized in respect of an item of property, plant, and equipment to its significant parts and depreciates separately each such part. For example, in most cases, it would be required to depreciate separately the pavements, formation, curbs and channels, footpaths, bridges, and lighting within a road system. Similarly, it may be appropriate to depreciate separately the airframe and engines of an aircraft whether owned or subject to a finance lease.

Under IPSAS 17, all property, plant, and equipment except land is depreciated. IPSAS 17 does not discuss the wider application of property, plant and equipment with an indefinite life.

Under IPSAS 17, depreciation ceases only when the asset is disposed of, unless the entity has adopted IPSAS 43 prior to IPSAS 45, in which case the accounting is the same as above.

IPSAS 17 does not require heritage assets to be recognized, and therefore useful lives may not need to be determined.

Depreciation Example

Scenario:

A government has a water treatment facility with the following components:

Component	Cost (CU)	Expected Life
Building structure	2,000,000	40 yrs
Roof	500,000	15 yrs
Pumps	1,000,000	10 yrs
HVAC System	500,000	15 yrs

Assuming it was in service Jan 1, 20x0, has no residual value and is depreciated on a straight line, what is the depreciation for year ended of Dec 31, 20x0? Explain.

How should the treatment facility be recognized?

Answer:

The government allocates the amount initially recognized in respect of treatment facility to its significant parts and depreciates separately each such part.

In this case, a straight-line basis has been chosen.

The components comprising the treatment plant would be as set out in the table. The roof and HVAC system have been grouped together because they have similar useful life expectancies.

Component	Cost (CU)	Expected Life	Calculation of depreciation	Depreciation for year ended Dec 3, 20x0
Building structure	2,000,000	40 yrs	Note 1	CU 50,000
Roof and HVAC	1,000,000	15 yrs	Note 2	CU 66, 667
Pumps	1,000,000	10 yrs	Note 3	CU 100,000
Total	4,000,000			CU 216,667

Note 1: CU 2,000,000 (original cost) / 40 yrs = CU 50,000

Note 2: CU 1,000,000 (original cost of Roof and HVAC) / 15 yrs = CU 66,667

Note 3: CU 1,000,000 (original cost) / 10 yrs = CU 100,000

Depreciation is charged to surplus or deficit for the year in the Statement of Performance for the period ended December 31, 20X0. The carrying amount of the water treatment plant reported in the Statement of Financial Position at December 31, 20X0 is CU 3,783,333 (CU 4,000,000 – CU 216,667).

Derecognition

- The carrying amount of PP&E is derecognized:
  - On disposal
  - When no future service potential or economic benefits is expected from its use or disposal
- Gain or loss on derecognition is included in surplus or deficit
- A replaced component is derecognized

The disposal of an item of property, plant and equipment may occur in a variety of ways, for example by sale, retirement, dismantlement or abandonment. The gain or loss arising from the derecognition of an item of property, plant, and equipment should be included in surplus or deficit when the item is derecognized. The gain or loss arising from derecognition of an item of property, plant, and equipment is the difference between the net disposal proceeds, if any, and the carrying amount of the item.

If an entity recognizes the cost of a replacement for part of the item in the carrying amount of an item of property, plant, and equipment, then it derecognizes the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately.

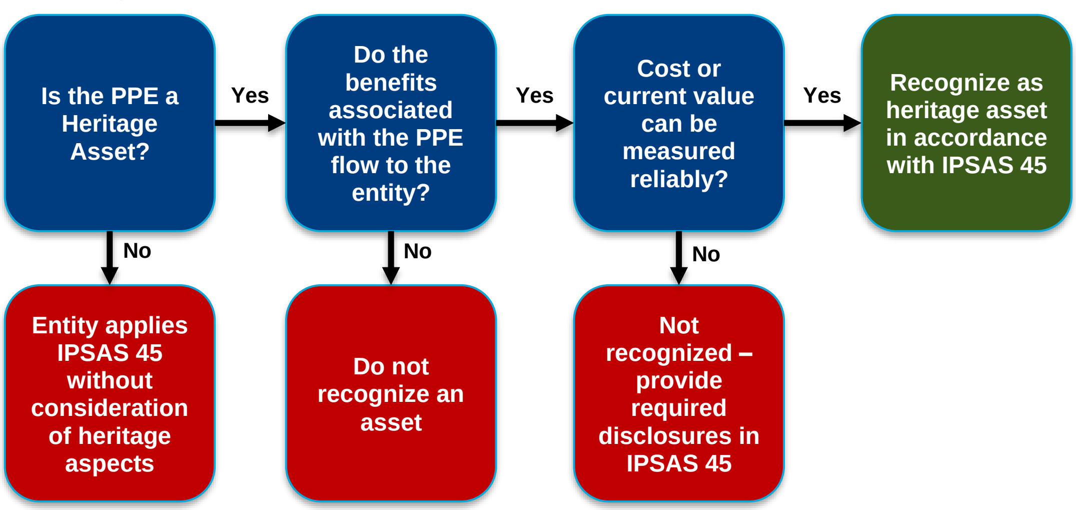
Parts of some items of property, plant, and equipment may require replacement at regular intervals. For example, a road may need resurfacing every few years. In other cases, less frequent replacement of a component parts is required. Under the recognition principle for property, plant and equipment, an entity recognizes the cost of replacing part of an item of property, plant, and equipment in the carrying amount when that cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognized in accordance with the derecognition provisions.

Note that there is a derecognition example in the *review questions*.

Guidance for Heritage and Infrastructure Assets

Applying the recognition and measurement requirements to heritage and infrastructure assets can bring particular challenges for public sector entities. IPSAS 45 includes additional guidance to assist entities in meeting these challenges.

Heritage Assets – Decision Tree



The decision tree is intended to assist entities in accounting for heritage items.

The first question is whether the item is a heritage item. Some items that meet the definition of an asset are described as heritage assets because of their rarity and/or significance in relation, but not limited, to their archeological, architectural, agricultural, artistic, cultural, environmental, historical, natural, scientific, or technological features. Entities usually intend to hold heritage assets for long periods and preserve them for the benefit of present and future generations. Examples of heritage assets include historic buildings, monuments, museum collections, and works of art. Heritage assets typically have the following distinguishing characteristics:

- They have restrictions on their use and/or disposal;
- They are irreplaceable; and
- They have long and sometimes indefinite useful lives.

If an item is a heritage item, the second question is whether the item meets the first recognition criterion for property, plant, and equipment (that is, is it probable that future economic benefits or service potential associated with the item will flow to the entity?). If not, then no asset is recognized.

Where the economic benefits of service potential do flow to the entity, the second recognition criterion is considered – can the cost (or deemed cost) or current value of the item be measured? If the answer is no, the entity will not recognize a heritage asset. However, the entity will need to make the disclosures required by IPSAS 45 in respect of unrecognized heritage assets.

Where both recognition criteria are met (the benefits will flow to the entity, and the item can be measured reliably) then the entity will recognize the heritage asset.at its cost or deemed cost. The entity will need to determine whether the useful life of the heritage asset is finite or indefinite. If the useful life is indefinite, the heritage asset is not depreciated. If the useful life is finite, the entity will need to determine the useful life of the heritage asset and depreciation the asset over that useful life.

Useful Life of Heritage Assets

- For a heritage asset to have an indefinite useful life, an analysis of the relevant factors should show that it is reasonable to consider that there is no foreseeable limit to the period over which it is expected to provide service potential
  - Examples include a heritage painting or sculpture held in a protective environment that is carefully controlled to preserve the asset
- Main factors to consider:
  - **Period providing service potential** – to the best of the entity's knowledge, the asset is expected to provide service potential indefinitely
  - **Usage** – should not result in physical wear and tear to the asset
  - **Preservation** – past actions known and preservation plan in place

When an entity has recognized a heritage asset, it will need to determine whether that asset should be depreciated. This will depend on whether the asset has a finite or an indefinite life.

Under IPSAS 45, there is a rebuttable presumption that non-land property, plant, and equipment have finite useful lives. For a heritage asset to have an indefinite useful life, an analysis of the relevant factors must, therefore, show that it is reasonable to consider that there is no foreseeable limit to the period over which it is expected to provide service potential (or be used operationally). Estimates of useful life should reflect projections of the relevant factors that are realistic, rather than optimistic or pessimistic.

The main factors to consider when assessing whether a heritage asset has an indefinite useful life are:

- **Period providing service potential**: The entity should expect that, to the best of its knowledge, the period over which the heritage asset will continue to provide service potential and/or future economic benefits will continue indefinitely. The assets' heritage value for future generations should be demonstrable, such that it is reasonable to expect that its heritage value will continue indefinitely.
- **Usage**: The usage of the heritage asset should not result in physical wear and tear to the heritage asset.
- **Preservation**: The entity should be able to describe the actions it has taken in the past and plans to continue to take to preserve the heritage asset, including adequate protection of heritage assets from the natural elements, where relevant. Preservation plans should include information on the likely availability of staff and financial resources to carry out the entity's preservation activities.

Entities apply judgment to estimate the useful life of an asset with reference to experience with similar assets.

If circumstances change, the entity will need to consider whether the heritage asset still has an indefinite useful life. If the heritage asset is found to have a finite useful life, the entity will then treat it as a depreciable asset and account for it accordingly.

> Because IPSAS 17 does not discuss indefinite useful lives for assets other than land, the specific guidance for heritage asset is not relevant to IPSAS 17. IPSAS 17 does not require heritage assets ti be recognized.

Land under or over Infrastructure

- All land should be separately accounted for, including land under or over infrastructure assets
  - Land under or over infrastructure assets accounted for under the current value model should be valued at current operational value or fair value
- Because the infrastructure asset itself is a specialized asset, market approach will often be challenging to apply - cost approach will be easier
- Under IPSAS 46, *Measurement*, cost approach is a techniques that reflects current replacement cost
  - Current replacement cost of the land under or over infrastructure is based on the current value of the land based on the existing site

Land should be separately accounted for. This requirement applies to all land, including land under or over infrastructure assets. Land under or over infrastructure assets accounted for under the current value model should be valued at current operational value or fair value. Because the infrastructure asset itself is a specialized asset, it will often be the case that the market approach will be challenging to apply, and that the asset will be more easily valued using the cost approach.

IPSAS 46, *Measurement,* defines the cost approach as a measurement technique that reflects the amount that will be required currently to replace the service capacity of an asset (often referred to as the current replacement cost).

The current replacement cost of the land is based on the current value of the land based on the existing site. For example, if the road runs through agricultural land, then the current value of the land under that section of the road will be agricultural and if the road runs through an industrial area, then the current value placed on the land under that section of the road will be industrial.

Depreciation of Infrastructure

- Judgment is required in determining whether those parts of the assets or similar group of assets that make up the infrastructure asset networks or systems are significant in relation to the whole infrastructure asset network or system when determining whether or not to treat them separately
- For financial reporting purposes, the following indicators can be helpful in identifying significant parts of an item of property, plant, and equipment:
    - Parts should be separately identifiable and measurable;
    - Parts should have significant value in relation to the asset; and
    - Parts should have different estimated useful lives.

IPSAS 45 requires that the amount initially recognized in respect of an item of property, plant, and equipment is allocated to its significant parts. These significant part are depreciated separately where they will have a material impact or effect on determining the annual depreciation expense.

IPSAS 45 requires separate recognition of the following:

- Items with a cost or value that is significant in relation to the total cost of the item shall be depreciated separately; and
- Significant parts of property, plant, and equipment to be grouped with other significant parts that have a similar useful life and / or depreciation method when determining the depreciation charge.

IPSAS 45 does not require any further breakdown of infrastructure assets. One of the characteristics of infrastructure assets is that they are networks or systems comprised by a number of assets. Each of those assets or groups of similar assets may be a separate unit of account and may have parts, based on the requirements above.

Judgment is required in determining whether those parts of the assets or similar group of assets that make up the infrastructure asset networks or systems are significant in relation to the whole infrastructure asset network or system when determining whether or not to treat them separately. For financial reporting purposes, the indicators listed above can be helpful in identifying significant parts of an item of property, plant, and equipment:

The entity must consider the facts and circumstances of the transaction as a whole, as well as materiality, to determine the significant parts for the purposes of calculating depreciation.

> IPSAS 17 does not include this guidance for infrastructure assets. However, as the requirements for recognizing land under or over infrastructure, and for depreciating infrastructure, are the same in IPSAS 17 and IPSAS 45 are the same, this guidance could be applied under IPSAS 17.

PP&E Primary Disclosures

- For each class
  - The measuremet bases
  - The depreciation methods
  - The useful lives or the depreciation rates used
  - Gross carrying amount and accumulated depreciations at beginning and end
  - Reconciliation of opening and closing balances
- Specific disclosures for the revaluation model and current value measurements
- Other disclosures e.g. restrictions on title, contractual commitments etc.

Disclosures required by IPSAS 45 are intended to provide users of financial statements with information that allows them to understand the effects of accounting policies used and additional information to that presented on the face of financial statements that enables comparisons to be made for the entity overtime and with other entities.

IPSAS 45 includes detailed disclosure requirements too numerous to list in the presentation material. The disclosure standards are based on the requirements in the standards. Once you understand the requirements, they are self-explanatory.

IPSAS 45 should be referenced for the required and encouraged disclosures. IPSAS 45 also includes an illustrative example of disclosures.

The primary disclosures required for each class of PP&E reported in financial statements include:

a) The measurement bases used for determining the gross carrying amount; Measurement basis would indicate whether the historical cost model or current value model has been used.

b) The depreciation methods used;

c) The useful lives or the depreciation rates used;

d) The gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period;

e) A reconciliation of the gross carrying amount and accumulated depreciation at the beginning and end of the period showing:

- **(i)** Additions;
- **(ii)** Assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IPSAS 44 and other disposals;
- **(iii)** Acquisitions through public sector combinations;
- **(iv)** Increases or decreases resulting from revaluations and from impairment losses (if any) recognized or reversed directly in net assets/equity in accordance with IPSAS 21 or IPSAS 26, as appropriate (where assets are measured at current value)
- **(v)** Impairment losses recognized or reversed in surplus or deficit in accordance with IPSAS 21 and IPSAS 26
- **(vi)** Depreciation;
- **(vii)** The net exchange differences arising on the translation of currency; and
- **(viii)** Other changes.

If a class of property, plant, and equipment is stated at revalued amounts there are specific required disclosures as follows:

- **a)** The effective date of the revaluation;
- **b)** Whether an independent valuer was involved;
- **c)** The revaluation surplus, indicating the change for the period;
- **d)** The sum of all revaluation surpluses for individual items of property, plant, and equipment within that class; and
- **e)** The sum of all revaluation deficits for individual items of property, plant, and equipment within that class

An entity shall disclose information that helps users of its financial statements assess both of the following:

- For property, plant, and equipment that are measured at current operational value or fair value in the statement of financial position after initial recognition, the valuation techniques and inputs used to develop those measurements.
- For fair value measurements using significant unobservable inputs (Level 3), or current operational value measurements estimated using significant unobservable inputs, the effect of the measurements on surplus or deficit or net assets/equity for the period.

IPSAS 46, *Measurement*, provides guidance on valuation techniques and inputs, and entities will need to refer to IPSAS 46 when making these disclosures.

Other disclosures required include restrictions on title and PP&E pledged as security; expenditures recognized in carrying amount of PP&E during construction; contractual commitments for the acquisition of PP&E; compensation from third parties for PP&E that were impaired, lost or given up that is included in surplus/deficit.

Some additional disclosures are encouraged.

The disclosure requirements in IPSAS 17 are similar to those in IPSAS 45. For assets carried under the revaluation model in IPSAS 17, the disclosures regarding current operational value or fair value listed above are not required.

Illustrative Continuity Schedule – Building Class

Reporting period	20X1 000s CU	20X0 000s CU
Cost		
Opening balance	2, 360	2,260
Additions	250	100
Disposals	0	0
Closing balance	2, 610	2, 360
Accumulated depreciation		
Opening balance	920	760
Depreciation	185	160
Closing balance	1,105	920
Carrying amount	1,505	1,440

Other line items that might be included:

a) Accumulated depreciation on disposals
b) Impairment losses, impairment reversals and accumulated impairment losses
c) If revaluation model is used, revaluation adjustments, revaluation surpluses and revaluation deficits

Disclosure of Unrecognized Heritage Assets

- Where heritage assets or a class of heritage assets are not recognized in the financial statements because, at initial measurement, its cost or current value cannot be measured reliably, the entity will need to disclose:
  - The difficulties in obtaining a reliable measurement that prevented recognition; and
  - The significance of the unrecognized heritage property, plant, and equipment in relation to delivery of the entity's objectives.

An entity can recognize subsequent expenditures on unrecognized heritage property, plant, and equipment. Where this is the case, an entity will need to make the disclosures discussed above in respect of the asset that is recognized for the subsequent expenditures on unrecognized heritage property, plant, and equipment.

These disclosures are not required under IPSAS 17, which does not require heritage assets to be recognized.

IPSAS 5, Borrowing Costs

- "Benchmark treatment" - borrowing costs expensed in the period incurred
- Allowed alternative treatment" - borrowing costs directly attributable to acquisition of qualifying asset included in cost
- Qualifying asset is one that takes a substantial period of time to get ready for its intended use (PP&E, some inventories, intangible assets)
- Guidance provided on which costs are eligible

An entity may incur debt and related borrowing cost associated with the acquisition, construction or production of plant, property and equipment. IPSAS 5 prescribes the accounting treatment for borrowing costs.

IPSAS 5 allows two alternatives for recognition of borrowing costs:

- "Benchmark treatment" - borrowing costs are recognized as an expense in the period in which they are incurred regardless of regardless of how the borrowings are applied; and
- "Allowed alternative treatment" - borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are included in the cost of that asset.

IPSASB offers choices in the application of some of their standards. The preferred choice is labeled the "benchmark treatment" and the other choice "allowed alternative treatment". Following either would still mean that an entity is compliant with the IPSAS 45.

When a public sector entity adopts the allowed alternative treatment under an IPSAS, that treatment should be applied consistently to all borrowing costs that are directly attributable to the acquisition, construction, or production of all qualifying assets of the entity.

A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale. Examples of qualifying assets are PP&E include such items as office buildings, hospitals, infrastructure assets such as roads, bridges and power generation facilities.

If an entity chooses the allowed alternative treatment, reference should be made to IPSAS 5 for guidance on determining borrowing costs eligible for capitalization. This guidance refers to IPSAS 41, *Financial Instruments*, which is covered in Module 6, *Financial Instruments*.

The borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are those borrowing costs that would have been avoided if the outlays on the qualifying asset had not been made. When an entity borrows funds specifically for the purpose of obtaining a particular qualifying asset, the borrowing costs that directly relate to that qualifying asset can be readily identified.

It may be difficult to identify a direct relationship between particular borrowings and a qualifying asset, and to determine the borrowings that could otherwise have been avoided, when, for example:

a) The financing activity of an economic entity is coordinated centrally;

b) An economic entity uses a range of debt instruments to borrow funds at varying interest rates

c) Borrowed funds are transferred to other entities within the economic entity as a loan with concessionary terms, a grant, or a capital injection

To the extent that funds are borrowed generally and used for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalization should be determined by applying a capitalization rate to the outlays on that asset. The capitalization rate should be the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs capitalized during a period should not exceed the amount of borrowing costs incurred during that period.

Impairment – IPSAS 21 and IPSAS 26

- A loss in future economic benefits or service potential in excess of depreciation
- Assessed at each reporting date
- IPSAS 21, *Impairment of Non-Cash Generating Assets* or IPSAS 26, *Impairment of Cash Generating Assets*
  - A cash -generating asset is held with the primary objective of generating commercial return
  - Non-cash-generating assets are all other assets
- Asset is written down to recoverable amount if impaired

"Impairment" is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation.

At each reporting date entities are required to assess whether there are any indications that an item of property, plant and equipment may be impaired.

An entity applies IPSAS 21, *Impairment of Non-Cash Generating Assets* or IPSAS 26, *Impairment of Cash Generating Assets*.

Although the definition of impairment is the same for both a non-cash generating asset and a cash generating asset, the requirements for assessing whether an asset is impaired, the measurement of impairment and its recognition are different depending on its nature. The standards explain how an entity reviews the carrying amount of its assets, how it determines the recoverable amount or recoverable service amount of an asset, and when it recognizes, or reverses the recognition of, an impairment loss.

The events or circumstances that may indicate an impairment of an asset will be significant, and will have had or are anticipated to have a long-term adverse effect. A change in the use of an asset during the period may also be an indication of impairment. Reference should be made to the appropriate standards if an asset is impaired.

A cash-generating asset is an asset held with the primary objective of generating a commercial return.

An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity. Holding an asset to generate a commercial return indicates that an entity intends to generate positive cash inflows from the asset (or from the cash-generating unit of which the asset is a part), and earn a commercial return that reflects the risk involved in holding the asset.

Impairment of a cash-generating asset reflects a decline in the future economic benefits or service potential embodied in an asset to the entity that controls it. In the context of cash-generating assets, the terms future economic benefits or service potential generally refer to the ability of the asset to generate future cash flows and a commercial return.

A non-cash-generating asset is any other asset of a public sector entity.

It is the primary objective that is relevant to determining that an asset is a cash-generating asset. For example, an asset may be held with the primary objective of generating a commercial return even though it does not meet that objective during a particular reporting period. Conversely, an asset may be a non-cash-generating asset, even though it may be breaking even or generating a commercial return during a particular reporting period.

In some cases, it may not be clear whether the primary objective of holding an asset is to generate a commercial return. Judgment is needed to determine whether an asset is cash-generating or non-cash-generating and consequently, which Standard to apply. In making the determination, an entity should develop criteria so that it can exercise that judgment consistently in accordance with the definition of cash-generating assets and non-cash-generating assets, and with the related guidance in IPSAS 21 and IPSAS 26.

Given the overall objectives of most public sector entities, the presumption is that assets are non-cash-generating and, therefore, IPSAS 21 will apply.

Impairment of a non-cash-generating asset reflects a decline in the utility of an asset to the entity that controls it. Given that most assets of a public sector entity are held to provide services, the discussion under IPSAS 21 refers to a loss in utility (as well as future economic benefits and service potential).

An asset is written down to the recoverable amount if impaired. Generally, if the carrying amount of an item exceeds its recoverable service amount or recoverable amount, it is written down and an impairment loss is recognized in surplus or deficit in the period of the write down.

IPSAS 21 and IPSAS 26 define both recoverable amount and recoverable service amount as the higher of an asset's fair value less costs of disposal (or less costs to sell in the case of IPSAS 21), and its value in use.

In IPSAS 21, fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal. This definition is independent of the definition of fair value in IPSAS 46, *Measurement*, However, IPSAS 26 does refer preparers to the guidance on measuring fair value in IPSAS 46 (see Module 10) when calculating fair value less costs of disposal.

The definitions of recoverable amount and recoverable service amount require different calculations of value in use.

Indicators of Impairment

Indicators of Impairment

Technological, legal, or policy changes

Obsolescence/physical damage

Change in use

Cessation of construction

Poor economic/service performance

Non-Cash Generating	**Cash generating**
No demand/need for services	**Decline in market value increased market interest** rates

IPSAS 21 and IPSAS 26 contain a list of key indicators that an impairment loss may have occurred for non-cash generating and cash generating assets, respectively.

In assessing whether there is any indication that an asset or group of assets may be impaired an entity shall consider, at a minimum external and internal sources of information. The lists of indicators are not intended to be exhaustive. An entity may identify other indications that an asset may be impaired.

If any of those indications of impairment are present, an entity is required to make a formal estimate of recoverable amount or recoverable service amount. If no indication of a potential impairment loss is present, an entity is not required to make a formal estimate of recoverable amount or recoverable service amount.

In assessing whether impairment has occurred, the entity needs to assess changes in service potential over the long term. This underlines the fact that the changes are seen within the context of the anticipated long-term use of the asset. However, the expectations of long-term use can change, and the entity's assessments at each reporting date would reflect that.

Changes in the planned used of an asset can include plans for its disposal. Once an asset meets the criteria to be classified as held for sale (or is included in a disposal group that is classified as held for sale), it is excluded from the scope of IPSAS 21 and IPSAS 26 and is accounted for in accordance with IPSAS 44, *Non-current Assets Held for Sale and Discontinued Operations* (see Module 9).

Questions and Discussions

That concludes our module on property, plant and equipment. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

A local government is adopting full accrual accounting under IPSAS for the first time and proposes not to account for land under roads. The local government argues that road is embedded in the land. The land is dedicated to the road right-of-way and has no alternative use. The road allowances have been dedicated by developers and therefore have no cost.

Is the land under roads an item of property, plant and equipment? Why?

Question 2

A government has completed major renovations of a heritage building that it uses for administrative offices

Is the heritage building an item that is accounted for in accordance with IPSAS 45? Why?

Question 3

A government has incurred the following costs for a new facility:

• Building construction cost	CU 2,800,000
• Site development costs	CU 230,000
• Design fees	CU 250,000
• Permits	CU 100,000
• Administrative and overhead	CU 250,000
• Relocation costs	CU 125,000
• Provision for site restoration	CU 500,000

What is the cost of the new facility for accounting purposes? Why?

Question 4

A public sector entity owns and operates a landfill. Regulations require the performance of closure and post-closure activities when the site ceases receiving waste. Closure activities include capping, effluent drainage and treatment and demolition of structures. The post-closure activities include maintenance and ongoing monitoring of the site. Capping may be performed as cells are filled.

What are the elements that would be included in the cost of the landfill site? Why?

Question 5

A public sector entity owns and operates a fuel storage facility for refueling its public works vehicles. Regulations require that the facility be dismantled and the site restored when it ceases to be used. A certain amount of spillage is inherent in the normal operations and a provision has been provided for clean-up of the site on closure. An accident has caused an abnormal amount of contamination that will have to be cleaned up on retirement of the facility.

What clean-up costs would be included in the cost of the fuel storage facility? Why?

Question 6

A government has replaced an existing major road bridge as follows:

Item	Cost CU
Construction contract	25,000,000
Demolition of old structure	2,000,000
Engineering and design	3,750,000
Contract supervision and inspection	2,000,000
Carrying amount of old structure (cost CU 15 million less accumulated depreciation CU 14, 500,000)	500,000

What is the initial carrying amount of the new bridge? What happens to the carrying amount of the old bridge?

Question 7

An entity replaces the HVAC system at a cost of CU 12,000 in a facility at the beginning of the fiscal period. Depreciation expense is calculated separately on each significant component on a straight- line basis.

Component Description	Cost (000s CU)	Expected Useful Life	Opening Accumulated Depreciation	Opening Net Book Value
Building Structure	132,00	40 years	26,400	105,600
Roof	22,000	16 years	11,000	11,000
HVAC System	10,000	10 years	8,000	2,000
Total	164,000	35 years	45,400	118,600

Based on the information in the table, what journal entries are required to record the replacement and the annual depreciation expense for the period?

Question 8

An entity owns a facility with an expected life of 40 years. The HVAC system is replaced after 10 years. There was no value for the old system.

	CU
Original cost	25,000,000
Accumulated depreciation (straight line.)	2,000,000
Cost of replacement	3,750,000
Original cost of component	2,000,000

How should the replacement be accounted for? Why?

Answers to Review Questions

Question 1

Yes, the land is an item that meets the definition of property, plant and equipment and should be recognized by the local government.

It would meet the recognition principles in that it is probable that future economic benefits or service potential associated with the item will flow to the entity; and the cost or fair value of the item can be measured reliably.

The land under roads is separable from the road and should be accounted for separately. With some exceptions, such as quarries and sites used for landfill, land has an indefinite useful life and therefore is not depreciated.

Question 2

Yes. IPSAS 45 requires that all heritage assets be recognized where they can be measured reliably. In the event that the heritage property itself could not be measured reliably, it has undergone extensive renovations to make it suitable for housing administrative functions of the government and these enhancements will be capable of being measured reliably. The property should be recognized and measured on the same basis as other items of property, plant, and equipment.

Question 3

The cost of an item of property, plant, and equipment comprises includes any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The elements of the cost of the new facility include:

Building construction costs	CU	2,800,000
Site development cost		230,000
Design fees		250,000
Permits		100,000
Provision for site restoration		500,000
Total Cost	CU	3,880,000

Administrative and overhead costs are not costs of an item of property, plant, and equipment.
(IPSASB 17, paragraph 33)

Recognition of costs in the carrying amount of an item of property, plant, and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Costs of relocating or reorganizing part or all of the entity's operations are not included in the carrying amount of an item of property, plant, and equipment. *(IPSASB 17, paragraph 34)*

Question 4

The elements of the cost of the landfill site include:

- **a)** Purchase and development of the site to receive waste (e.g. excavation, lining cells, etc.)
- **b)** Construction of service buildings
- **c)** Best estimate of the costs of closure and post closure activities

The public sector entity has a legal obligation associated with the closure of the landfill site that results from its acquisition, construction, development and normal operation. It is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligations when the landfill ceases receiving waste.

The estimated costs of closure and post closure activities are added to the cost of the landfill site and depreciated to surplus or deficit over the estimated useful life of the landfill.

Question 5

The cost of the fuel storage facility would not include the estimated costs for the cleanup of contamination caused by the accidental spill.

An environmental remediation liability that results from the normal operation of the fuel storage facility and that is associated with the retirement of that asset is accounted for as a cost of the asset. However, the obligation to clean up after the accident does not result from the normal operation of the facility. The provision for the environmental cleanup would not form a part of the cost of the asset. It would be recognized in surplus or deficit in the period when the accidental spill occurred.

Question 6

The initial carrying amount of the bridge would be CU 33,250,000. The cost includes demolition of the old structure.

The old bridge is derecognized when taken out of service as follows:

	Debit	Credit
Accumulated Depreciation	CU 14, 500,000	
Loss on derecognition (surplus or deficit)	CU 500,000	
Cost	CU 3, 750,000	(CU 15,000,000)

Question 7

The annual depreciation expense is calculated separately on each significant component.

	No Replacement	HVAC replaced
Building Envelop (CU 132,000 / 40 yrs)	CU 3,300	CU 3,300
Roof (CU 22,999 / 16 yrs)	CU 1,375	CU 1, 375
HVAC System (CU 10,000 / 10 yrs)	CU 1,000	CU 1,200*
Total	CU 5,675	CU 5,875

* Assumes a full year of depreciation in year of replacement.

If the HVAC system is replaced in the period the following journal entries would be made.

	Debit	Credit
Building	CU 12,000	
Accounts Payable		CU 12,000
To record the retirement of old HVAC system		
Accumulated Depreciation	CU 8,000	
Building		CU 10,000
Total Loss on disposal of HVAC	CU 2,000	

Question 8

An entity evaluates all its property, plant, and equipment costs under the recognition principle at the time they are incurred. These costs include costs incurred initially to acquire or construct an item of property, plant, and equipment and costs incurred subsequently to add to, replace part of, or service it.

Under the recognition principle, an entity does not recognize the costs of repairs and maintenance in the carrying amount of the item of property, plant, and equipment. Repair and maintenance are generally the costs of the day-to-day servicing. Costs of day-to-day servicing are primarily the costs of labor and consumables, and may include the cost of minor parts. It may include payments made under service contracts. These costs are recognized in surplus or deficit as incurred.

However, parts of some items of property, plant, and equipment may require replacement at during its the life. Under the recognition principle in IPSAS 45, an entity recognizes the cost of replacing part of an item of property, plant, and equipment in the carrying amount of the item when that cost is incurred if the recognition criteria are met.

Professional judgment is required in determining whether part of an item of property, plant and equipment should be included in the carrying amount of that item. If it is determined that the replacement part is repairs and maintenance, the costs are recognized in surplus or deficit as incurred.

If an entity recognizes in the cost of a replacement for part of the item in the carrying amount it derecognizes the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired or constructed.

The following table summarizes the accounting treatment of the replacement component assuming it has been determined that it should be included in the carrying amount of the facility.

		CU
Original Cost	(a)	2,000,000
Accumulated depreciation (CU 12, 000,000/40 yrs * 10 yrs)	(b)	500,000
Accumulated Depreciation	(c	1,500,000
Building	(d)	50,000
Calculation of carrying amount of HVAC Component replaced		
Original cost of component (from original invoice)	(e)	25,000
Accumulated depreciation (CU 25,000/40 yrs*10yrs)	(f)	6,250
Carrying amount of replaced component (e) – (f)	(g)	18,750
Calculation of cost amount after replacement		
Original cost before replacement	(j)	2,000,000
Add cost of replacement	(k)	50,000
Less cost of original component replaced	(l)	25,000
Original cost after replacement	(m)	2,025,000
Calculation of accumulated depreciation after replacement		
Accumulated depreciation before replacement	(n)	500,000
Less accumulated depreciation on replaced component	(o)	18,750
Accumulated depreciation after replacement	(p)	481,250
Carrying amount after replacement (m) – (p)	(q)	1,543,750
Calculation of gain (loss) on derecognition **Proceeds on disposal of replaced component**	(h)	Nil
Loss on derecognition (h) – (g)	(i)	(18,750)

Loss on derecognition of replaced component is recognized through surplus or deficit in the period of replacement.

Intangible Assets

Intangible Assets – IPSAS 31

- Definition
  - An identifiable non-monetary asset without physical substance
  - Capable of being separated or divided from the entity
- Scope
  - Acquired or internally generated intangible assets
  - Acquired through a public sector combination (acquisition)
  - Satisfy recognition criteria
  - Intangible heritage assets *(unless cost or fair value cannot be measured)*
  - Powers and rights excluded from scope

Many assets, such as buildings and inventories, are tangible. However, entities frequently expend resources, or incur liabilities, on the acquisition, development, maintenance, or enhancement of intangible resources such as computer software, patents, copyrights, motion picture films, lists of users of a service, acquired fishing licenses, acquired import quotas, and relationships with users of a service. Both tangible and intangible resources may nevertheless be assets of an entity.

IPSAS 31 focuses on recognition of acquired or internally generated intangible assets that meet the definition and recognition criteria.

Under IPSAS 31, an intangible asset is an identifiable non-monetary asset without physical substance. Not all the items described above meet this definition of an intangible asset under IPSAS 31.

An identifiable intangible capital asset is one that is capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged or arises from binding arrangements (contracts).

In order to recognize an intangible asset, it must be controlled by the entity as a result of past events and it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the entity.

In private sector accounting, intangible assets are recognizable rights to future economic benefits. Examples include patent rights. The value to be recognized is subject to uncertainty.

In the public sector, with the possible exception of computer software, such assets are seldom reported. Complexities arise when considering identification, recognition and measurement of intangible assets. Public sector entities, unlike private sector entities, rarely acquire intangible assets such as patents, licenses, etc. For internally generated intangible assets, it is often difficult to determine whether and when there is an identifiable asset that will generate expected future economic benefits or service potential and determining the cost of the asset reliably.

Sovereign governments and other public sector entities have significant rights or powers conferred on them by legislation or by equivalent means that allow them to regulate access to the benefits embodied in intangible resources. For example, a government may have the power to issue licenses that regulate access to the electromagnetic spectrum or enter into agreements with third parties to access natural resources on government lands. The specific accounting and reporting issues related to the powers and rights of public sector entities have not been dealt with by IPSASB and are outside the scope of IPSAS 31, *Intangible Assets*.

Some assets, such as computer software, incorporate both intangible and tangible elements. Professional judgment is required in determining whether an asset that incorporates both should be reported as a tangible capital asset or as an intangible asset. The determination would be based on an assessment of which element is more significant. For example, the operating system of a computer is integral to the operation of the computer hardware. When the software is not an integral part of the related hardware, computer software may be an intangible asset.

Intangible Assets

- Item must be
  - Identifiable – separable or arises from binding arrangements
  - Controlled – for intangibles often stems from legal rights or ability to restrict access by others to benefits
- Recognize
  - Meet criteria above
  - Probability of future service potential/economic benefit
  - Cost or fair value measured reliably

Intangible assets must be identifiable. This will be the case where an intangible asset is acquired under a binding arrangement (a contract). This applies even if the rights to the intangible asset cannot be transferred or separated from the rights to other assets acquired under the contract. Public sector entities often acquire computer software licenses. These generally meet the definition of an acquired intangible asset. With this exception, it is rare for public sector entities to acquire intangible assets under a binding arrangement.

Where the intangible asset is not acquired through a binding arrangement (an internally generated intangible asset), the recognition criteria are stricter. The asset must be separable. That is, it must be capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset or liability. Whether the entity intends to do this or not is irrelevant.

In order to recognize an intangible asset, it must be controlled by the entity. An entity controls an asset if the entity has the power to obtain the future economic benefits or service potential flowing from the underlying resource and to restrict the access of others to those benefits or that service potential.

The remaining recognition criteria are the same as for other assets:

- The probability of future service potential or economic benefit flowing to the entity; and
- The cost of fair value of the asset must be capable of being measured reliably.

Acquired or Internally Generated?

- Most acquired intangible assets will meet criteria for recognition
  - Examples: software, brands & trademarks, in-process R&D
  - If acquired through non-exchange transaction, cost is fair value at date of acquisition
- Internally generated harder to establish recognition criteria
  - Research phase – expense
  - Development phase – recognize only when criteria met

With the exception of software, it is rare for public sector entities to acquire intangible assets.

Intangible assets are measured at cost on initial recognition. If they are acquired through a non-exchange transaction, the deemed cost is the fair value of the intangible asset at the date of acquisition.

Recognition of an internally generated intangible asset has stricter criteria. Expenditure has to be separated into a research and a development phase. If this cannot be done, all expenditure is treated as part of the research phase and cannot be recognized as an intangible asset.

IPSAS 31 includes guidance on how to distinguish between the research and development phases.

Expenditure on the development phase can be capitalized as an intangible asset where the recognition criteria are met. To recognize expenditure as an intangible asset, IPSAS 31 requires an entity to be able to demonstrate:

a) The technical feasibility of completing the intangible asset so that it will be available for use or sale;

b) Its intention to complete the intangible asset and use or sell it;

c) Its ability to use or sell the intangible asset;

d) How the intangible asset will generate probable future economic benefits or service potential. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;

e) The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

f) Its ability to measure reliably the expenditure attributable to the intangible asset during its development.

For Internally Generated

- Do not capitalize:
  - Internally generated goodwill
  - Intangible items in research phase
  - Items that cannot be distinguished from development of operations as a whole
- Capitalize:
  - When expenditure meets development phase criteria, capitalize further development costs – some exceptions

Internally generated goodwill cannot be capitalized.

Expenditure incurred during the research phase of an intangible asset cannot be capitalized.

Items that cannot be distinguished from development of operations as a whole cannot be capitalized. This includes internally generated brands, mastheads, publishing titles, lists of users of a service and similar items.

Expenditure incurred within the development phase of an intangible asset can be capitalized where the recognition criteria are met. Expenditure must be directly attributable to bringing the asset into use.

Examples of expenditure that cannot be capitalized include:

a) Selling, administrative and other general overhead expenditure unless this expenditure can be directly attributed to preparing the asset for use;

b) Identified inefficiencies and initial operating deficits incurred before the asset achieves planned performance; and

c) Expenditure on training staff to operate the asset.

Other Issues

- Subsequent additions to or replacements of intangible assets usually expensed
- May capitalize if expenditure clearly enhances service potential of original asset e.g. software enhancements
- Assess finite or indefinite useful life – if finite amortize; if indefinite review for impairment annually
- Disclosures

Most subsequent additions to or replacements of intangible assets are usually expensed. This is because they do not meet the recognition criteria. They are likely to maintain the expected future economic benefits or service potential embodied in an existing intangible asset. In addition, it is often difficult to attribute subsequent expenditure directly to a particular intangible asset rather than to the entity's operations as a whole.

However, if the expenditure clearly enhances the service potential of original asset, then the recognition criteria may be met. If so, the costs should be capitalized.

Intangible assets may have a finite or an indefinite useful life. An example of a finite useful life would be the purchase of a software license for a fixed period such as 5 years.

Where an intangible asset has a finite useful life, it is amortized over that useful life.

Where an intangible asset has an indefinite useful life, it is not amortized. However, it is reviewed for impairment at least annually.

Intangible Assets Acquired in a Public Sector Combination (Acquisition)

- Cost is fair value at acquisition date
- Intangible asset must be identifiable (to distinguish it from goodwill)
- Recognized even if not previously recognized by acquired operation

Public sector entities may acquire intangible assets through public sector combinations (acquisitions). The accounting for public sector combinations is set out in IPSAS 40, *Public Sector Combinations*.

When an intangible asset is acquired through a public sector combination, the cost of the intangible assets is its fair value (as defined in IPSAS 46, *Measurement*) at the acquisition date.

The probability of future economic benefits or service potential flowing to the entity is always considered to be satisfied for intangible assets acquired in a public sector combination because it expects there to be economic benefits from the combination. If the asset is separable or arises from binding arrangements, sufficient information will exist to measure the fair value of the intangible asset, and therefore the requirement that the value of the asset can be reliably measured is met.

Intangible assets acquired in a public sector combination are recognized separately from goodwill. Consequently, the entity must be able to identify the intangible asset, separately from goodwill, in order to recognize the asset. If an entity cannot identify the intangible asset, it forms part of goodwill and is not recognized separately.

An entity recognizes at the acquisition date, separately from goodwill, an intangible asset of an acquired operation, irrespective of whether the asset had been recognized by the acquired operation before the acquisition. This means that the acquirer recognizes as an intangible asset an in-process research and development project of the acquired operation if the project meets the definition of an intangible asset.

IPSAS 31 sets out the disclosure requirements in relation to intangible assets.

Questions and Discussions

That concludes our module on intangible assets. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

The electromagnetic spectrum is used by all wireless communications. Managing this electromagnetic spectrum is the responsibility of the department of industry of the government. The government's policy is to ensure fair and equitable access to the electromagnetic spectrum through a system of licensing under the Telecommunications and Broadcasting Act.

Is the electromagnetic spectrum an asset of the government that meets the recognition criteria?

Question 2

A feasibility study has confirmed that future economic benefits and service potential will be realized from installation of an ERP software system. The expected useful life of the system and hardware is 5 years. The following table summarizes the expenditures made.

Phase	CU (000s)
Feasibility, internal needs assessment, vendor evaluation and selection	750
License purchase (one time)	1,250
Hardware	5,250
System configuration and implementation (internal staff and external consultants)	20,650

Which costs, if any, can be recognized as an intangible asset of a government? Explain

Answer to Review Questions

Question 1

The government can effectively enforce its benefits related to the electromagnetic spectrum. It has the power through legislation to regulate and restrict the access of others to those benefits. It is probable that the benefits will flow to the government form its control over the electromagnetic spectrum.

However, it may not qualify for recognition as an asset in financial statements because it cannot be measured reliably.

An item may meet the definition of an asset but still not be recognized in financial statements because it is not expected that future economic benefits will be obtained or because a reasonable estimate cannot be made of the amount involved.

Question 2

Although the software resides on computer hardware, it is not integral to the operation of that hardware. Therefore, the software is an intangible asset.

The government has assessed the probability of realizing future economic benefits or service potential through completion of a feasibility study during the planning stages of the project. It has been determined that it is probable that future economic benefits or service potential will be realized.

The intangible asset is internally generated although a portion is purchased. The most significant cost is the configuration of the software to meet the needs of the government and its implementation.

The feasibility study needs assessment and vendor evaluation and selection would be considered the research phase of the project and therefore expenditures would be recognized as an expense. At this stage of the project, the government cannot demonstrate that an intangible asset exists.

The purchase, configuration and implementation of the software would be the development phase. Expenditures on development activities would be recognized as an intangible capital asset. The expenditures can be reliably measured.

The computer hardware and operating systems integral to its operation would not be an intangible asset. It may be recognized as property, plant and equipment.

Leases (IPSAS 43)

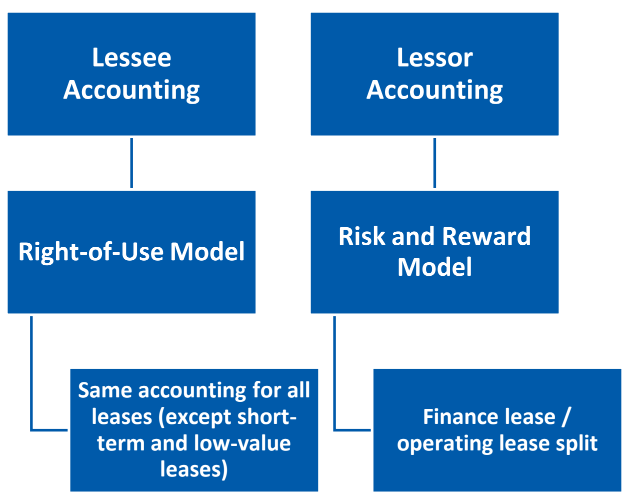
Public sector bodies commonly enter into lease agreements with lessors that convey a right to use an asset for an agreed period of time in return for a payment (or series of payments). Public sector bodies may also act as the lessor, conveying a right to use an asset to a third party for an agreed period of time in return for a receipt (or series of receipts).

IPSAS 43, *Leases* replaces the previous standard, IPSAS 13, *Leases* for reporting periods beginning on or after January 1, 2025. Any government that is adopting accrual accounting is strongly recommended to move directly to IPSAS 43. IPSAS 43 has significantly different requirements for lessee accounting, and therefore entities that have adopted IPSAS 13 will need to transition to IPSAS 43 very shoirtly.

Scope

- IPSAS 43 is applied in accounting for all leases except:
  - Leases to explore for or use minerals, oil, natural gas, and similar non-regenerative resources
  - Leases of biological assets within the scope of IPSAS 27, Agriculture held by lessees
  - Service concession arrangements within the scope of IPSAS 32, Service Concession Arrangements: Grantor
  - Licensing agreements for such items as motion picture films, video recordings, plays, manuscripts, patents, and copyrights
- A lessee may, but is not required to, apply IPSAS 43 to leases of intangible assets other than licensing arrangements

Accounting models used in IPSAS 43



IPSAS 43 includes different accounting models for lessee accounting and lessor accounting. Lessees account for the right-of-use asset in the lease contract for all leases (except where IPSAS 43 permits exceptions for short-term and low value leaseson cost-benefit grounds). Lessees account for leases using a risk and reward model that distinguishes between operating leases and finance leases. This model in similar to that previously used in IPSAS 13.

Governments that are adopting IPSAS should note that this use of different models for lessee and lessor accounting will have implications for the consolidated financial statements. Where one entity in an economic entity leases an asset to another entity in the same economic entity, there should be no transactions or change in the reporting of the asset in the consolidated financial statements. Consolidation adjustments will therefore be required, as the two model require entities to report on different assets (the right of use asset for the lessee and the underlying asset for the lessor). This means that amounts cannot simply be eliminated, and additional record-keeping may be required.

Definitions

- A **lease** is a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration.
- **Underlying asset** is an asset that is the subject of a lease, for which the right to use that asset has been provided by a lessor to a lessee.
- **A right-of-use asset** is an asset that represents a lessee's right to use an underlying asset for the lease term.
- **Period of use** is the total period of time that an asset is used to fulfil a contract with a customer (including any non-consecutive periods of time).

The distinction between an underlying asset and a right of use asset is critical to the lessee accounting model in IPSAS 43. The underlying asset is the tangible or intangible asset that is the subject of the lease contract. The right-of-use asset is the lessee's right to use that underlying asset, and only exists as a result of the lease contract.

Other definitions are explained later in this module as the concepts are discussed.

Identifying a Lease

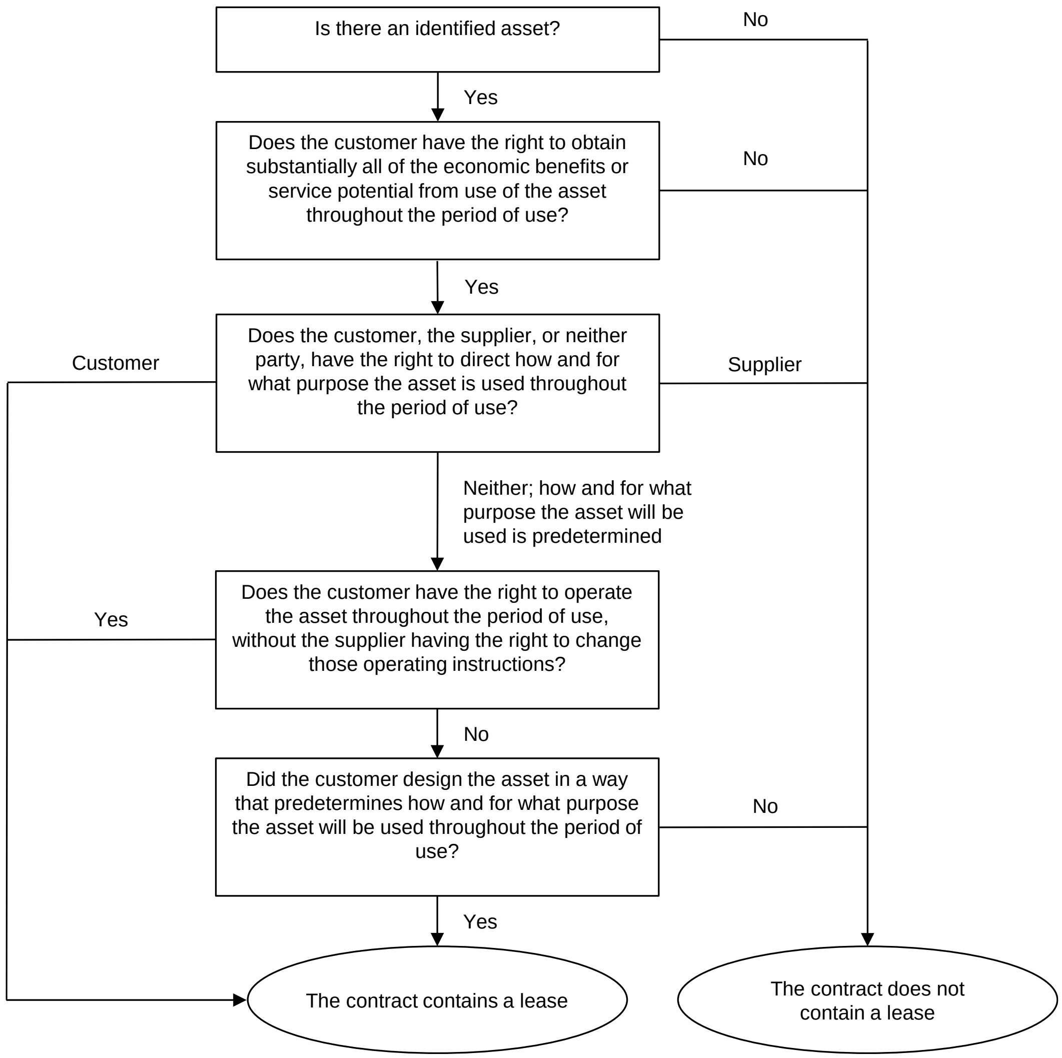
- At inception of a contract, an entity should assess whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.
- An entity shall assess whether, throughout the period of use, the customer has both of the following:
  - The right to obtain substantially all of the economic benefits or service potential from use of the identified asset; and
  - The right to direct the use of the identified asset.
- If the customer has the right to control the use of an identified asset for only a portion of the term of the contract, the contract contains a lease for that portion of the term.

An example of a contract with a lease component and a non-lease component would be a lease of a number of vehicles with servicing and break-down recovery services included.

The period of time referred to above may be described, in some contracts, in terms of the amount of use of an identified asset (for example, the number of production units that an item of equipment will be used to produce).

An entity should only reassess whether a contract is, or contains, a lease if the terms and conditions of the contract are changed.

IPSAS 43 includes the following flowchart that may assist entities in making the assessment of whether a contract is, or contains, a lease:



Separating Components of a Contract

- General treatment:
  - Account for each lease component within the contract as a lease separately from non-lease components of the contract
  - Lessee allocates the consideration based on the relative stand-alone price of the lease component and non-lease components
  - Lessor allocates the consideration to the lease and non-lease components by applying IPSAS 47, *Revenue*
- Practical expedient:
  - Lessee may elect, by class of underlying asset, to account for each lease component and any associated non-lease components as a single lease component.

The relative stand-alone price of lease and non-lease components is determined on the basis of the price the lessor, or a similar supplier, would charge an entity for that component, or a similar component, separately. If an observable stand-alone price is not readily available, the lessee will need to estimate the stand-alone price, maximizing the use of observable information.

Stand-alone price is similar to the concept of the stand-alone value in IPSAS 47, *Revenue*. Entities that require further guidance on identifying the stand-alone price could refer to that Standard (and Module 4).

Because stand-alone price is essentially the same concept as stand alone value in IPSAS 47, where stand-alone value is used as the basis for allocating consideration to different components of a contract or binding arrangement, the same principles are used to allocate the lease consideration to the components of the contract by both the lessee and the lessor.

As a practical expedient, a lessee may elect, by class of underlying asset, not to separate non-lease components from lease components. Instead, the entity would account for each lease component and any associated non-lease components as a single lease component. A lessee is not allowed to apply this practical expedient to embedded derivatives (see IPSAS 41, *Financial Instruments* and Module 6).

Unless the practical expedient is applied, a lessee should account for non-lease components by applying other applicable Standards. For example, where a lease contract covers the lease of a piece of equipment and the supply of the conumables needed to maintain the equipement, the entity would accounf for the lease of the equipment by applying IPSAS 43, and the purchase and use of the consumables by applying IPSAS 12, *Inventories*.

Lease Term

- The lease term is the non-cancellable period of a lease, together with both:
  - Periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and
  - Periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option.
- Reasonably certain – consider all relevant facts and circumstances that create an economic incentive for the lessee to exercise the option to extend the lease, or not to exercise the option to terminate the lease.

A lessee should reassess whether it is reasonably certain to exercise an extension option, or not to exercise a termination option, upon the occurrence of either a significant event or a significant change in circumstances that:

a) Is within the control of the lessee; and

b) Affects whether the lessee is reasonably certain to exercise an option not previously included in its determination of the lease term, or not to exercise an option previously included in its determination of the lease term.

An entity shall revise the lease term if there is a change in the non-cancellable period of a lease, for example where the lessee exercises an option not previously included in the entity's determination of the lease term (or does not exercise an option previously included in the entity's determination of the lease term).

Lessee Accounting

The following requirements apply to the accounting for the lease by the lessee, applying the right-of-use model. These requirements are significantly different to those in the previous Standard, IPSAS 13.

Lessee Accounting: Recognition

- **At the commencement date, a lessee shall recognize a right-of-use asset and a lease liability.**
- Definitions:
  - A **right-of-use asset** is an asset that represents a lessee's right to use an underlying asset for the lease term.
  - The **commencement date** is the date on which a lessor makes an underlying asset available for use by a lessee.

At the commencement date, the lessee will recognize the right-of-use asset (an asset that represents the lessee's entitlement to use the lessor's asset for a period of time) and a liability to make the lease payments. The commencement date will be the first date on which the lessee controls an asset under the lease agreement, and is different from the date on which the lessee enters into the lease agreement (which is referred to as the inception date).

Lessee Accounting: Recognition Exceptions

- A lessee may elect not to apply the usual recognition and measurement requirements to:
  - Short-term leases; and
  - Leases for which the underlying asset is of low value
- A short-term lease is a lease that, at the commencement date, has a lease term of 12 months or less. A lease that contains a purchase option is not a short-term lease.
- Lessee does not apply the usual recognition and measurement requirements – lease payments are recognized as an expense:
  - on a straight-line basis over the lease term; or
  - on another systematic basis if that basis is more representative of the pattern of the lessee's benefit

Where an entity elects to use the exception for short-term leases, this must be made by class of underlying asset (that is, the exception can be used for all short-term leases of the same type of asset, or none). A class of underlying asset is a grouping of underlying assets of a similar nature and use in an entity's operations. Where an entity elects to use the exception for leases of low value, this can be made on a lease-by-lease basis. IPSAS 43 does not include any guidance on when an underlying asset is considered to be of low value.

Where an entity uses the exception for short-term leases, it should consider the lease to be a new lease for the purposes of IPSAS 43 if:

- There is a lease modification; or
- There is any change in the lease term (for example, the lessee exercises an option not previously included in its determination of the lease term).

This means it may not be able to apply the exception to the revised lease, for example if the lease is extended and no longer meets the criteria to be treated as a short-term lease.

Lessee Accounting: Initial Measurement of Right of Use Asset

- **At the commencement date, a lessee shall measure the right-of-use asset at cost:**

Cost of right of use asset

=

Amount of the initial measurement of the lease liability

+

Lease payments made at or before the commencement date

−

Lease incentives received

+

Initial direct costs incurred by the lessee

+

Estimate of costs to be incurred restoring the site or asset

A lessee recognizes the costs shown above as part of the cost of the right-of-use asset when it incurs an obligation for those costs. These obligations may arise at different times. For example, the lessee may incur the obligation for dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset either at the commencement date or as a consequence of having used the underlying asset during a particular period.

Lessee Accounting: Initial Measurement of Lease Liability

At the commencement date, lessee measures the lease liability at the **present value of the lease payments** that are not paid at that date

The lease payments are discounted using **the interest rate implicit in the lease**, if that rate can be readily determined

If that rate cannot be readily determined, the lessee uses the lessee's **incremental borrowing rate**

Lessee Accounting: Components of Lease Liability

- At the commencement date, the lease payments that are not paid at the commencement date and are included in the measurement of the lease liability comprise the following:

Fixed payments (including in-substance fixed payments)

−

Lease incentives receivable

+

Variable lease payments that depend on an index or a rate

+

Amounts expected to be payable under residual value guarantees

+

Exercise price of a purchase option (if reasonably certain)

+

Payments of penalties for termination (lease term reflects termination)

Variable lease payments that depend on an index or a rate include, for example, payments linked to a consumer price index, payments linked to a benchmark interest rate or payments that vary to reflect changes in market rental rates.

The exercise price of a purchase option is included in the measurement of the lease liability only if the lessee is reasonably certain to exercise that option.

Payments of penalties for terminating the lease are included in the measurement of the lease liability if the lessee's determination of the lease term is based on the lessee exercising an option to terminate the lease.

Lessee Accounting: Subsequent Measurement of Right-of-Use Asset

- After the commencement date, lessee measures the right-of-use asset applying a historical cost model, unless it applies either of the other measurement models permitted
- Historical Cost Model:
  - Measure the right-of-use asset at cost
  - Less any accumulated depreciation and any accumulated impairment losses (apply IPSAS 21 or IPSAS 26); and
  - Depreciation period is useful life of underlying asset if ownership will transfer at end of lease, otherwise over lease term (or useful life of right of use asset if shorter)
  - Adjusted for remeasurement of the lease liability

A lessee should apply the depreciation requirements in IPSAS 45, *Property, Plant, and Equipment* in depreciating the right-of-use asset. This is, however, subject to the requirements above regarding the depreciation period.

A lessee will need to apply either IPSAS 21, *Impairment of Non-Cash-Generating Assets* or IPSAS 26, *Impairment of Cash-Generating Assets*, as appropriate, to determine whether the right-of-use asset is impaired and, if so, to account for any impairment loss identified. The requirements of IPSAS 21 and IPSAS 26 are summarized *earlier in this module*.

Because the cost of the right-of-use asset reflects the cost of the lease liability, changes in accounting estimate resulting in remeasurements of the lease liability also affect the estimate of the cost of the right-of-use asset. The circumstances in which the carrying amount of the right-of-use asset is adjusted are explained in the discussion on the reassessment of the lease liability *later in this module*.

Lessee Accounting: Other Measurement Models for Right-of-Use Asset

- If a lessee applies the fair value measurement basis in the current value model in IPSAS 16, *Investment Property* to its investment property, the lessee applies that fair value measurement basis to right-of-use assets that meet the definition of investment property
- If right-of-use assets relate to a class of property, plant and equipment to which the lessee applies the current value model in IPSAS 45, *Property, Plant, and Equipment*, a lessee may elect to apply that current value model to all of the right-of-use assets that relate to that class of property, plant and equipment

Two Standards that deal with the accounting for underlying assets permit an entity to adopt an accounting policy of remeasuring assets. IPSAS 16 permits an entity to adopt a current value model in measuring investment property. Where an entity applies this model to its owned investment property, it is required to adopt the same model when measuring right-of-use assets that meet the definition of investment property in IPSAS 16.

Similarly, IPSAS 45 permits an entity to adopt a current value model in measuring some or all classes of property, plant and equipment. Where an entity has adopted the current value model for measuring a class of property, plant and equipment, the entity may adopt the same model for measuring right-of-use assets that relate to the same class of property, plant and equipment (that is, where the underlying asset would be in that class). However, unlike investment property, the entity is not required to use the current value model for right-of-use assets where the related property, plant and equipment is measured using the current value mode, and may instead use the historical cost model.

Lessee Accounting: Subsequent Measurement of Lease Liability

- After the commencement date, lessee measures the lease liability by:
  - Increasing the carrying amount to reflect interest on the lease liability;
  - Reducing the carrying amount to reflect the lease payments made; and
  - Remeasuring the carrying amount to reflect any reassessment or lease modifications, or to reflect revised in-substance fixed lease payments
- Interest on the lease liability in each period is the amount that produces a constant periodic rate of interest on the remaining balance of the lease liability

In-substance fixed lease payments are payments that may, in form, contain variability but that, in substance, are unavoidable. For example, a lease agreement may include payments that will only be made if a specified event occurs. If there is no genuine possibility that the event will not occur, the payments will, in practice, always be made. The payments are therefore treated as in-substance fixed lease payments.

The periodic rate of interest is the discount rate (or, if applicable, the revised discount rate). Where the commencement date of a lease is at the start of a reporting period, with payments made annually at the end of each period, the interest expense in a period is simply the carrying amount of the lease liability at the start of the period multiplied by the discount rate. The calculation will be more complex where payments are made more frequently than annually (for example, monthly) or when the lease is taken out part way through a period.

Lessee Accounting: Costs Recognized in Surplus or Deficit

- After the commencement date, a lessee recognizes in surplus or deficit:
  - Interest on the lease liability
  - Variable lease payments not included in the measurement of the lease liability
  - Depreciation of the right of use asset
  - Impairment of the right of use asset
- In some circumstances, other IPSAS may permit some or all of these costs to be included in the cost of another asset rather than being recognized as an expense

Variable lease payments that are not included in the measurement of the lease liability in the period are those that do not depend on an index or a rate. Such payments include payments based on revenue or profit sharing, and payments for use of the asset above a specified threshold. For example, a bus lease may specify additional payments if the distance driven in a month exceeds 5,000 miles (8,000 kilometers). A lessee would recognize an expense for those payments in the months where it exceeded the threshold.

IPSAS 43 does not specify the accounting treatment for all of the costs listed above. Depreciation expenses are accounted for in accordance with IPSAS 45, and impairment expenses in accordance with IPSAS 21 or IPSAS 26, whichever is relevant.

Other IPSAS may permit some or all of the costs that are usually recognized in surplus or deficit to be included in the cost of another asset rather than being recognized as an expense. For example, if a lessee uses a leased piece of equipment exclusively on the construction of an office building, the depreciation of the right-of-use asset for the leased equipment can be included in the cost of the building, in accordance with IPSAS 45.

Lessee Accounting Example - Scenario

- A municipality leases a building for five years. The lease terms include fixed payments of CU54,150, payable at the end of each period. At the end of the lease term, the building will revert to the lessor, with no option for the municipality to purchase the building. The building has an expected useful life of thirty years. The municipality has incurred no direct costs associated with the lease
- The municipality does not know the implicit interest rate of the lease as it does not know the fair value of its interest in the lease. It therefore calculates the net present value of the lease payments using its incremental borrowing rate of 4.5%.
- The municipality calculates the cost of the right of use asset, and the lease liability as CU237,717.24

As the series of payments (five annual payments at the end of each period of CU54,150) and the discount rate (the incremental borrowing rate of 4.5%) are known, the net present value of the payments can be calculated using the NPV function in a spreadsheet.

Lessee Accounting Example – Accounting for Right of Use Asset

- The municipality recognizes the right of use asset at CU237,717.24 This is depreciated on a straight-line basis over the lease term (CU47,543.45 in years 1-4 and CU47,543.44 in year 5):

Year	Opening Carrying Amount	Depreciation	Closing Carrying Amount
1	237,717.24	(47,543.45)	190,173.79
2	190,173.79	(47,543.45)	142,630.34
3	142,630.34	(47,543.45)	95,086.89
4	95,086.89	(47,543.45)	47,543.44
5	47,543.44	(47,543.44)	0.00

The table shows the effect of depreciating the right-of-use asset on a straight-line basis over the five-year lease term. The minor difference in Year 5 (CU0.01) arises because the opening value of the asset (in this example, the net present value of the annual lease payments) is not exactly divisible by 5.

Lessee Accounting Example – Accounting for Lease Liability

- The municipality recognizes the lease liability at CU237,717.24 Interest at 4.5% is expensed annually and added to the lease liability. The lease liability is reduced by the annual payments of CU54,150:

Year	Opening Liability Balance	Interest	Payment	Closing Liability Balance
1	237,717.24	10,697.28	(54,150.00)	194,264.52
2	194,264.52	8,741.90	(54,150.00)	148,856.42
3	148,856.42	6,698.54	(54,150.00)	101,404.96
4	101,404.96	4,563.22	(54,150.00)	51,818.18
5	51,818.18	2,331.82	(54,150.00)	0.00

This table shows the effect of increasing he lease liability by the interest expense each period, and then reducing the lease liability by the annual lease payments. The interest expense each period is calculated by multiplying the opening liability balance by the discount rate of 4.5% For example, in Year 1 interest is calculated as CU237,717.24 x 4.5% = CU10,697.28.

Note that although the initial carrying amounts of the right-of-use asset and the lease liability are equal, this is not the case subsequently (until the end of the lease term). This is because the value of the right-of-use asset decreases on a straight-line basis, whereas the value of the liability decreases by the annual lease payment less the interest expense. Because the interest expense is higher in the early years (when the value of the liability is higher), the reduction in the lease liability increases each year as interest expense reduces.

Lessee Accounting: Reassessment of Lease Liability

- After the commencement date, a lessee remeasures the lease liability to reflect changes to the lease payments
  - Amount of the remeasurement of the lease liability recognized as an adjustment to the right-of-use asset
  - Where the carrying amount of the right-of-use asset is reduced to zero, further reductions in the measurement of the lease liability is recognized in surplus or deficit
  - Revised discount rate used if change in lease term or change in the assessment of an option to purchase the underlying asset
  - Discount revised lease payments if change in residual value payments or change in payments resulting from a change in an index or rate used to determine those payments (original discount rate unless change arises from a change in floating interest rates)

A lessee will need to remeasure the lease liability if either:

- There is a change in the lease term (in which case the revised lease payments are determined on the basis of the revised lease term); or
- There is a change in the assessment of an option to purchase the underlying asset (in which case the revised lease payments are determined to reflect the change in amounts payable under the purchase option).

The lessee remeasures the lease liability by discounting the revised lease payments using a revised discount rate. The revised discount rate is the interest rate implicit in the lease for the remainder of the lease term, if that rate can be readily determined, or, if the implicit rate cannot be readily determined, the lessee's incremental borrowing rate at the date of reassessment.

Additionally, a lessee will need to remeasure the lease liability if either:

- There is a change in the amounts expected to be payable under a residual value guarantee. The lessee should determine the revised lease payments to reflect the change in amounts expected to be payable under the residual value guarantee.
- There is a change in future lease payments resulting from a change in an index or a rate used to determine those payments, for example a change in future lease payments to reflect changes in market rental rates following a market rent review. The lessee should remeasure the lease liability to reflect those revised lease payments only when there is a change in the cash flows (i.e. when the adjustment to the lease payments takes effect). A lessee should determine the revised lease payments for the remainder of the lease term based on the revised contractual payments.

In these cases, the lessee remeasures the lease liability by discounting the revised lease payments using an unchanged discount rate, unless the change in lease payments results from a change in floating interest rates. In that case, the lessee will need to calculate a revised discount rate that reflects changes in the interest rate, and use that revised rate to discount the revised lease payments.

Lessee Accounting: Lease Modifications – Separate Lease

- Lessee accounts for a lease modification as a separate lease if both:
  - The modification increases the scope of the lease by adding the right to use one or more underlying assets; and
  - The consideration for the lease increases by the stand-alone price for the increase in scope and any appropriate adjustments

A lease modification is a change in the scope of a lease, or the consideration for a lease, that was not part of the original terms and conditions of the lease (for example, adding or terminating the right to use one or more underlying assets, or extending or shortening the contractual lease term). Lease modifications need to be agreed between the lessee and the lessor.

Some modifications are accounted for as if they are a separate lease. This is the case where:

- The modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- The consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

An example would be where a lessee has leased a fleet of vehicles, and agrees a modification to add further vehicles at the lessor's usual price for those vehicles, adjusted for the volume discount included in the original lease terms.

If these criteria are not met, the lease is not accounted for as a separate lease.

Lessee Accounting: Lease Modifications – Modified Contract

- Lease modification not accounted for as a separate lease:
  - Allocate the consideration in the modified contract
  - Determine the lease term of the modified lease
  - Remeasure the lease liability by discounting the revised lease payments using a revised discount rate
- Account for the remeasurement of the lease liability:
  - Decrease the carrying amount of the right-of-use asset to reflect the partial or full termination of the lease (lease modifications decrease the scope of the lease – recognize any gain or loss in surplus or deficit)
  - Make a corresponding adjustment to the right-of-use asset for all other lease modifications

Where a lease modification is not accounted for as a separate lease, the lessee will need to:

- Allocate the consideration in the modified contract (based on stand-alone price, as discussed earlier in this module);

- Determine the lease term of the modified lease; and
- Remeasure the lease liability by discounting the revised lease payments using a revised discount rate (the implicit interest rate where this is readily available, or the lessee's incremental borrowing rate where the implicit interest rate is not readily available).

These actions will need to be performed at the effective date of the lease modification.

Where the lease modification is not accounted for as a separate lease, the lessee will need to account for the remeasurement of the lease liability by:

- Decreasing the carrying amount of the right-of-use asset to reflect the partial or full termination of the lease for lease modifications that decrease the scope of the lease. The lessee should recognize any gain or loss relating to the partial or full termination of the lease in surplus or deficit.
- Making a corresponding adjustment to the right-of-use asset for all other lease modifications.

An example would be where a lessee has leased a fleet of vehicles, and agrees a modification to return some of the vehicles early. The lessee would decrease the carrying amount of the right of use asset to reflect the early return of the vehicles, and remeasure the lease liability based on the revised lease payments. Any gain or loss would be recognized in surplus or deficit.

Lessee Accounting: Presentation

- Present in the statement of financial position or disclose in the notes:
  - Right-of-use assets separately from other assets
  - Lease liabilities separately from other liabilities
- Statement of financial performance: present interest expense on the lease liability separately from depreciation on the right-of-use asset
- In the cash flow statement, classify:
  - Cash payments for the principal portion within financing activities
  - Cash payments for the interest portion applying the requirements in IPSAS 2, *Cash Flow Statements* for interest paid
  - Short-term lease payments, payments for leases of low-value assets and variable lease payments not included in the measurement of the lease liability within operating activities

If a lessee does not present right-of-use assets separately in the statement of financial position, the lessee will need to include right-of-use assets within the same line item as the corresponding underlying assets would be presented. The lessee will also need to disclose which line items in the statement of financial position include those right-of-use assets.

The requirements regarding the presentation of right-of-use assets do not apply to right-of-use assets that meet the definition of investment property. There right-of-use should be presented in the statement of financial position as investment property.

If the lessee does not present lease liabilities separately in the statement of financial position, the lessee will need to disclose which line items in the statement of financial position include those liabilities.

Interest expense on the lease liability is a component of finance costs, which IPSAS 1, *Presentation of Financial Statements* requires to be presented separately in the statement of financial performance.

IPSAS 2, *Cash Flow Statements*, does not specify how interest paid is to be classified in the cash flow statement, unless the entity is a public financial institution. Interest paid under a lease contract should be treated consistently with other interest payments.

Lessee Accounting: Disclosure

- Depreciation charge for right-of-use assets by class of underlying asset
- Interest expense on lease liabilities
- The expense relating to short-term leases. Need not include the expense relating to leases with a lease term of one month or less
- The expense relating to leases of low-value assets. Does not include the expense relating to short-term leases of low-value assets
- The expense relating to variable lease payments not included in the measurement of lease liabilities
- Revenue from subleasing right-of-use assets
- Total cash outflow for leases
- Additions to right-of-use assets
- Gains or losses arising from sale and leaseback transactions
- The carrying amount of right-of-use assets at the end of the reporting period by class of underlying asset

The objective of the disclosures is for lessees to disclose information in the notes that, together with the information provided in the statement of financial position, statement of financial performance and cash flow statement, gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of the lessee.

A lessee should disclose information about its leases for which it is a lessee in a single note or separate section in its financial statements. However, a lessee need not duplicate information that is already presented elsewhere in the financial statements, provided that it cross-references this information in the single note or separate section about leases.

Disclosures required by other Standards may apply to leases:

- Right-of-use assets that meet the definition of investment property will require the disclosures specified in IPSAS 16.
- If a right-of-use asset is measured at current value, the disclosure requirements in IPSAS 45 should be followed.
- A maturity analysis of lease liabilities (presented separately from the maturity analyses of other financial liabilities) is required in accordance with IPSAS 30, *Financial Instruments: Disclosures*.

A lessee may need to disclose additional qualitative and quantitative information about its leasing activities necessary to meet the disclosure objective set out above.

Lessor Accounting

The following requirements apply to the accounting for the lease by the lessor, applying the risks and reqards model. These requirements are similar, but not identical, to those in the previous Standard, IPSAS 13.

Lessor Accounting: Classifying Leases

- A lessor classifies each of its leases as either an operating lease or a finance lease.
- A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset.
- A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset.

The primary issue in lessor accounting is the classification of the lease as either a finance lease or an operating lease. IPSAS 43 requires that lease agreements are accounted for in accordance with their economic substance rather than legal form.

Whether a lease is an operating or finance lease depends on whether the risks and rewards of ownership of the related asset lie with the lessee or the lessor.

Risks include the possibilities of losses from idle capacity, technological obsolescence, changes in value because of economic conditions

Rewards include the expectation of service potential or profitable operation over the asset's life, gain from appreciation in value or realization of a residual value.

When a lease includes both land and buildings elements, an entity assesses the classification of each element as a finance or an operating lease separately. A lease could include a finance lease for the building element and an operating lease for the land element.

In determining whether the land element is an operating or a finance lease, an important consideration is that land normally has an indefinite economic life.

For a lease of land and buildings in which the amount for the land element is immaterial to the lease, a lessor may treat the land and buildings as a single unit for the purpose of lease classification and classify it as a finance lease or an operating lease. The economic life of the buildings is taken to be the economic life of the entire underlying asset.

Lessor Accounting: Finance Lease Indicators

- Situations (individually or in combination) would normally lead to a lease being classified as a finance lease - a lease does not need to meet all these criteria in order to be classified as a finance lease
  - Lease transfers ownership of the underlying asset to the lessee
  - Lessee has the option to purchase the underlying asset at a price sufficiently lower than the fair value that purchase is reasonably certain
  - Lease term is for the major part of the economic life of the underlying asset
  - Present value of the lease payments amounts to at least substantially all of the fair value of the leased asset
  - Underlying asset is of such a specialized nature that only the lessee can use it without major modifications

Whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract. Examples of situations that individually or in combination would normally lead to a lease being classified as a finance lease are shown above.

Lessor Accounting: Other Finance Lease Indicators

- Other indicators that individually or in combination could also lead to a lease being classified as a finance lease are:
    - If the lessee can cancel the lease, the lessor's losses associated with the cancellation are borne by the lessee
    - Gains or losses from the fluctuation in the fair value of the residual accrue to the lessee (for example in the form of a rent rebate equaling most of the sales proceeds at the end of the lease)
    - The lessee has the ability to continue the lease for a secondary period at a rent that is substantially lower than market rent

The examples and indicators shown above are not always conclusive, and professional judgment is required.

If it is clear from other features that the lease does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset, the lease is classified as an operating lease.

- For example, this may be the case if ownership of the underlying asset transfers at the end of the lease for a variable payment equal to its then fair value, or if there are variable lease payments, as a result of which the lessor does not transfer substantially all such risks and rewards.

Lease classification is made at the inception date and is reassessed only if there is a lease modification. Changes in estimates (for example, changes in estimates of the economic life or of the residual value of the underlying asset), or changes in circumstances (for example, default by the lessee), do not give rise to a new classification of a lease for accounting purposes.

Lessor Accounting: Recognition of Finance Leases

- At the commencement date, a lessor recognizes assets held under a finance lease in its statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease.
- Definitions:
    - Net investment in the lease is the gross investment in the lease discounted at the interest rate implicit in the lease.
    - Gross investment in the lease is the sum of:

      (a) The lease payments receivable by a lessor under a finance lease; and

      (b) Any unguaranteed residual value accruing to the lessor.
- Underlying asset is derecognized.

The unguaranteed residual value accruing to the lessor is the value that the lessor estimates is can recover from the underlying asset at the end of the lease term, whether through sale, further leases or use.

Lessor Accounting: Initial Measurement of Finance Leases

- The lessor uses the interest rate implicit in the lease to measure the net investment in the lease
    - In the case of a sublease, if the interest rate implicit in the sublease cannot be readily determined, an intermediate lessor may use the discount rate used for the head lease
- Initial direct costs are included in the initial measurement of the net investment in the lease and reduce the amount of revenue recognized over the lease term.
    - The interest rate implicit in the lease is defined in such a way that the initial direct costs are included automatically in the net investment in the lease; there is no need to add them separately

The interest rate implicit in the lease is the rate of interest that causes the present value of (a) the lease payments and (b) the unguaranteed residual value to equal the sum of (i) the fair value of the underlying asset and (ii) any initial direct costs of the lessor.

Lessor Accounting: Lease Payments Included in Net Investment

- At the commencement date, the lease payments included in the measurement of the net investment in the lease comprise the following payments not received at the commencement date:
    - Fixed payments less any lease incentives payable;
    - *Variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date*
    - Any residual value guarantees provided to the lessor by the lessee, a party related to the lessee or a third
    - The exercise price of a purchase option if the lessee is reasonably certain to exercise that option
    - Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

Fixed payments included in the measurement of the net investment in the lease includes in-substance fixed payments. In-substance fixed payments were discussed *earlier in this module* under lessee accounting.

The payments that are included in the measurement of the net investment in the lease by the lessor are consistent with the payments that the lessee includes in the lease liability (although the lease liability only includes residual value guarantees provided by the lessee, not other parties).

These payments are similar to the minimum lease payments under IPSAS 13. However, variable lease payments that depend on an index or rate were not included in the minimum lease payments under IPSAS 13, Consequently, the net investment in the lease under IPSAS 43 may be different to the equivalent figure under IPSAS 13.

Lessor Accounting: Subsequent Measurement of Finance Leases

- A lessor recognizes finance revenue over the lease term, based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease.
- Allocate finance revenue over the lease term on a systematic and rational basis by applying the lease payments relating to the period against the gross investment in the lease to reduce both the principal and the unearned finance revenue.
- Apply the derecognition and impairment requirements in IPSAS 41, *Financial Instruments*, to the net investment in the lease (receivable)

The unearned finance revenue is the difference between the gross investment in the lease and the net investment in the lease. A lessor will account for a finance lease by recognizing finance revenue and increasing the receivable for the interest earned in the period, and by recognizing cash and reducing the receivable for the payments received.

A lessor will need to apply the derecognition and impairment requirements in IPSAS 41 to the net investment in the lease. A lessor will also need to regularly review estimated unguaranteed residual values used in computing the gross investment in the lease. If there has been a reduction in the estimated unguaranteed residual value, the lessor should revise the revenue allocation over the lease term and recognize immediately any reduction in respect of amounts accrued.

A lessor that classifies an asset under a finance lease as held for sale (or includes it in a disposal group that is classified as held for sale) should account for the asset in accordance with IPSAS 44, *Non-current Assets Held for Sale and Discontinued Operations* (see Module 8).

Lessor Accounting Example – Revenue Recognition

- Agency X leases an asset to Municipality Y for five years. Agency X's net investment in the lease is CU50,000. The annual lease payments are all fixed payments of CU11,740.95 (implicit interest rate of 5.6%) There is no residual value at the end of the lease period. The table shows how Agency X recognizes revenue.

Year	Receivable 1 January	Receipt	Revenue	Receivable 31 December
20X1	50,000.00	(11,740.95)	(2,800.00)	41,059.05
20X2	41,059.05	(11,740.95)	(2,299.31)	31,617.41
20X3	31,617.41	(11,740.95)	(1,770.57)	21,647.03
20X4	21,647.03	(11,740.95)	(1,212.23)	11,118.31
20X5	11,118.31	(11,740.95)	(622.64)	0.00

The lease is accounted for as a finance lease. In this example, the fact that there is no residual value at the end of the lease period is assumed to demonstrate that the lease period covers the whole of the useful life of the asset.

There are no variable payments in the lease, so all payments are included in the net investment in the lease. Revenue is calculated my multiplying the receivable balance at 1 January by the implicit interest rate of 5.6%.

- Taking year 20X1 as an example, CU50,000 x 5.6% = CU2,800.
- The balance of the receipt (CU11,740.95 – CU2,800 = CU8,940.95 in year 20X1) reduces the receivable at 31 December. In year 20X1, this gives CU50,000 - CU8,940.95 = CU41,059.05.

Lessor Accounting: Modifications of Finance Leases

- Account for a modification to a finance lease as a separate lease if both:
  - The modification increases the scope of the lease by adding the right to use one or more underlying assets; and
  - The consideration for the lease increases by an amount that reflects the stand-alone price for the increase in scope and any appropriate adjustments
- Account for a modification to a finance lease that is not accounted for as a separate lease as follows:
  - If the lease would have been classified as an operating lease had the modification been in effect at the inception date:
    - Account for the lease modification as a new lease from the modification date
    - Measure the carrying amount of the underlying asset as the net investment in the lease immediately before the effective date of the lease modification (i.e., re-recognize the underlying asset that had previously been derecognized)
  - Otherwise, the lessor shall apply the requirements of IPSAS 41

As with lessee accounting, a modification to a finance lease is accounted for as a separate lease if the modification increases the scope of the lease by adding the right to use one or more additional underlying assets, and the consideration increases to reflect the use of the underlying asset(s). The consideration should reflect the stand-alone price for the increase in scope, along with any appropriate adjustments (for example, where the original lease agreement includes a volume discount that is also applied to the modification).

If the lease modification is not accounted for as a separate lease because the criteria are not met, the lessor will next have to consider the effect of the modification. If the effect of the modification is such that the lease would have been accounted for as an operating lease had the revised terms been in effect at the inception date, then the lease is accounted for as a new (operating) lease from the modification date. The underlying asset that was previously derecognized is re-recognized, measured at the net investment in the lease (that is, the value of the lease receivable) immediately before the modification date.

If neither of these circumstances apply, the lessor will need to apply IPSAS 41, *Financial Instruments* in accounting for the modification (see Module 6). This is because the lease receivable is a financial asset, and the modification will affect how that financial asset is measured.

Lessor Accounting: Recognition and Measurement of Operating Leases

- Recognize lease payments from operating leases as revenue on either a straight-line basis (or another systematic basis if that basis is more representative of the pattern in which benefit from the use of the underlying asset is diminished)
- Add initial direct costs incurred in obtaining an operating lease to the carrying amount of the underlying asset and recognize those costs as an expense over the lease term on the same basis as the lease revenue
- Recognize costs, including depreciation, incurred in earning the lease revenue as an expense

The accounting for an operating lease is generally straightforward.

A lessor should recognize costs, including depreciation, incurred in earning the lease revenue as an expense.

A lessor should add initial direct costs incurred in obtaining an operating lease to the carrying amount of the underlying asset and recognize those costs as an expense over the lease term on the same basis as the lease revenue. Because the lease term may be different to the expected useful life of the underlying asset, the initial direct costs may need to be treated as a separate component of the underlying asset when calculating depreciation.

The depreciation policy for depreciable underlying assets subject to operating leases will need to be consistent with the lessor's normal depreciation policy for similar assets. Depreciation and amortization are calculated in accordance with IPSAS 45 (property, plant and equipment) and IPSAS 31 (intangible assets).

IPSAS 21 or IPSAS 26, as appropriate, are applied in order to determine whether an underlying asset subject to an operating lease is impaired and, if so, to account for any impairment loss identified.

Lessor Accounting: Modifications of Operating Leases

- Account for a modification to an operating lease as a new lease from the effective date of the modification
- Treat any prepaid or accrued lease payments relating to the original lease as part of the lease payments for the new lease

All modifications to an operating lease are treated as a new lease from the effective date of the modification. The lessor will need to consider whether this new lease is an operating lease or a finance lease, and account for the lease accordingly.

Lessor Accounting: Presentation and Disclosure

- Present underlying assets subject to operating leases in the statement of financial position according to the nature of the underlying asset.
- Disclose the following amounts for the reporting period:
  - For finance leases:
    - Selling surplus or deficit
    - Finance revenue on the net investment in the lease
    - Revenue relating to variable lease payments not included in the measurement of the net investment in the lease
  - For operating leases, lease revenue, separately disclosing revenue relating to variable lease payments that do not depend on an index or a rate

The objective of the disclosures is for lessors to disclose information in the notes that, together with the information provided in the statement of financial position, statement of financial performance and cash flow statement, gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of the lessor.

A lessor may need to disclose additional qualitative and quantitative information about its leasing activities necessary to meet the disclosure objective.

For finance leases, a lessor should disclose a maturity analysis of the lease payments receivable.

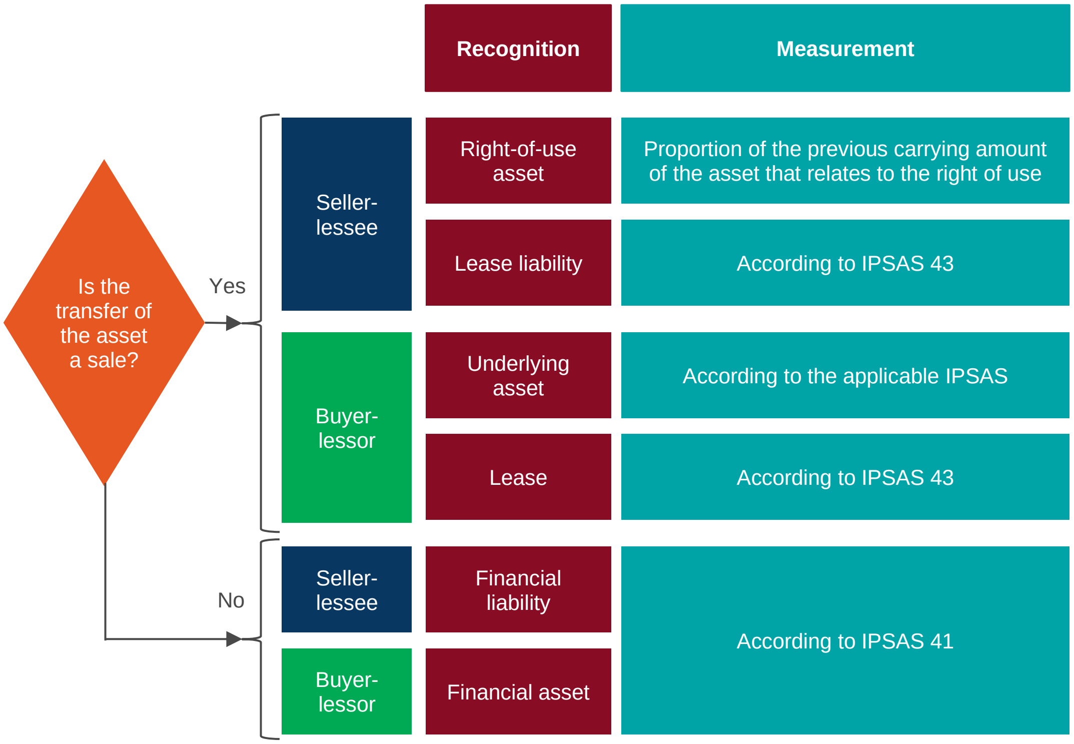
- The maturity analysis should show the undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and a total of the amounts for the remaining years.
- The undiscounted lease payments should be reconciled to the net investment in the lease, identifying the unearned finance revenue relating to the lease payments receivable and any discounted unguaranteed residual value.

For items of property, plant and equipment subject to an operating lease, a lessor will need to apply the disclosure requirements of IPSAS 45. In doing so, the lessor will need to show (for each class of asset) those assets subject to an operating lease and those assets not subject to an operating lease separately.

The lessor should also make any disclosures required by other IPSAS (for example IPSAS 16, *Investment Property*) for assets subject to an operating lease.

Similarly to finance leases, a lessor should disclose a maturity analysis of operating lease payments, showing the undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and a total of the amounts for the remaining years.

Sale and Leaseback Transactions



The diagram above illustrates the accounting for sale and leaseback transactions under IPSAS 43. A sale and leaseback transaction occurs where an entity transfers an asset to another entity, and immediately leases the same asset back. The accounting for the sale and leaseback transaction depends on the substance of that transaction, that is whether the transfer amounts to a sale or not.

The entity that originally owned the asset is referred to as the seller-lessee. The entity that receives the asset under the transfer and then leases it back to the original owner is referred to as the buyer-lessor.

Assessing Whether the Transfer of the Asset is a Sale

To determine whether the transfer of an asset in a sale and leaseback arrangement is accounted for as a sale of that asset, an entity will need to determine whether the conditions for satisfying a compliance obligation (as specified in IPSAS 47, *Revenue*) have been met.

Transfer of the Asset is a Sale

If the transfer of an asset by the seller-lessee satisfies the requirements to be accounted for as a sale of the asset:

a) The seller-lessee measures the right-of-use asset (arising from the leaseback) at the proportion of the previous carrying amount of the asset that relates to the right of use retained by the seller-lessee.

b) The buyer-lessor shall account for the purchase of the asset applying applicable Standards (for example, IPSAS 45 for property, plant and equipment), and for the lease applying the lessor accounting requirements in IPSAS 43.

If the fair value of the consideration for the sale of an asset does not equal the fair value of the asset, or if the payments for the lease are not at market rates, an entity shall make the following adjustments to measure the sale proceeds at fair value:

a) Any below-market terms are accounted for as a prepayment of lease payments.

b) Any above-market terms are accounted for as additional financing provided by the buyer-lessor to the seller-lessee.

Transfer of the Asset is not a Sale

If the transfer of an asset by the seller-lessee does not satisfy the requirements to be accounted for as a sale of the asset:

a) The seller-lessee continues to recognize the transferred asset and also recognizes a financial liability equal to the transfer proceeds. It accounts for the financial liability by applying IPSAS 41.

b) The buyer-lessor does not recognize the transferred asset and instead recognizes a financial asset equal to the transfer proceeds. It accounts for the financial asset by applying IPSAS 41.

Questions and Discussions

That concludes our module on leases. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

Which of the following sentences best describes which model or models entities should use in accounting for a lease?

- **a)** The lessee and the lessor should both use the right-of-use model.
- **b)** The lessee should use the risk and rewards model and the lessor should use the right-of-use model.
- **c)** The lessee and the lessor should both use the risk and rewards model.
- **d)** The lessee should use the right-of-use model and the lessor should use the risk and rewards model.

Question 2

Municipality A enters into a lease for a fire truck on January 1, 20x1. The lease term is five years and at the end of the lease, title transfers to Municipality A. The economic life of the vehicle is 7 years. The present value of the lease payments included in the lease liability is CU100,000. Lease payments of CU23,740 are made on December 31 each year. The implicit interest rate in the lease is 6%. Municipality A incurs CU5,000 for legal fees in respect of the lease negotiations.

What accounting entries will Municipality A make in 20x1?

Question 3

Government B enters into an agreement to lease a building on January 1, 20x1. The lease term is five years. The present value of the lease payments included in the lease liability is CU100,000. Lease payments of CU23,740 are made on December 31 each year. The implicit interest rate in the lease is 6%. Municipality A incurs CU5,000 for legal fees in respect of the lease negotiations.

What interest expense does Government B recognize in 20x1, 20x2, 20x3, 20x4 and 20x5?

What is the amount of the outstanding liability at 31 December 20x1; 31 December 20x2; 31 December 20x3; 31 December 20x4 and 31 December 20x5?

Question 4

A lessor leases a specialized piece of equipment to a government agency. The lease term is 10 years, and title to the equipment will transfer to the government agency at the end of the lease term. The economic life of the equipment is 25 years. The present value of the lease payments included in the lease liability amounts to 97% of the fair value of the equipment.

Should the lessor classify the lease as a finance lease or an operating lease?

Question 5

Province C owns an office building. The carrying amount of the building and the associated land is CU275,000. Province C has adopted the historical cost method of accounting for property, plant and equipment.

Province C enters into a lease agreement to lease the land and building to a private sector company. The lease commences on 1 January 20x1 and the lease term is 20 years. At the end of the lease period, title to the land and building will be transferred to the company.

The fair value of the land and building is CU325,000. The company makes fixed lease payments of CU25,130 annually on 31 December. This gives an implicit interest rate of 4.567%.

What accounting entries will Province C make in 20x1?

Answers to Review Questions

Question 1

The answer is d). The lessee should use the right-of-use model and recognize a right-of-use asset in the statement of financial position. The lessor should use the risk and rewards model, and classify the lease as either a finance lease (when it will derecognize the underlying asset and recognize a financial asset – a receivable) or an operating lease.

Question 2

At 1 January 20x1, Municipality A recognizes a right-of-use asset (fire truck) and a related lease liability. The lease liability is recognized at the present value of the lease payments not paid at that date (CU100,000). The right-of-use asset is measured at cost – in this example, the amount of the initial measurement of the lease liability (CU100,000) plus the initial direct costs (the legal fees) incurred by Municipality A (CU5,000) = CU105,000.

Dr Asset (Fire Truck)	**CU105,000**
Cr Lease Liability	**CU100,000**
Cr Cash / Bank	**CU5,000**

At 31 December 20x1, Municipality A makes the first lease repayment. If recognizes the following amounts for 20x1:

1. Interest expense for the year

   (CU6000: 6% implicit interest rate x outstanding liability of CU100,000)

2. Reduction in the lease liability from the lease repayment

   (CU 17,740: Lease repayment of CU 23,740 less interest expense of CU 6,000)

3. Depreciation of the right-of-use asset (fire truck)

   (Assuming straight line depreciation, CU 15,000: Asset value CU 105,000 / 7 years economic life)

The asset is depreciated over 7 years (the economic life of the asset) rather than 5 years (the term of the lease) because title to the fire truck transfers to Municipality A at the end of the lease term. Municipality A will benefit from the use of the asset for the full economic life of the asset.

Dr Interest expense	**CU6,000**
Dr Lease Liability	**CU17,740**
Cr Cash / Bank	**CU23,740**
Dr Depreciation Charge	**CU15,000**
Cr Right-of-Use Asset (Fire Truck)	**CU15,000**

Question 3

The following table shows how the lease repayments will be allocated each year, and the movements in the lease liability:

	20x1	20x2	20x3	20x4	20x5
Interest Expense	6,000	4,936	3,807	2,611	
Liability Reductions	17,740	18,804	19,933	21,129	
Movement in Liability					
1 January	0	82,260	63,456	43,523	22,394
Recognition	100,000	0	0	0	0
Reduction in Peri	(17,740)	(18,804)	(19,933)	(21,129)	(22,394)
31 December	82,260	63,456	43,523	22,394	0

Question 4

The lessee will need to consider all the criteria specified in IPSAS 43 to determine whether the lease is a finance lease or an operating lease:

a) The lease transfers ownership of the asset to the lessee by the end of the lease term.

b) The lessee does not have the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value. As title to the asset will transfer, this criterion does not apply.

c) The lease term is not for the major part of the economic life of the asset. However, title to the asset will transfer, so the lessee will gain the benefits from the asset for the major part of its economic life.

d) The present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.

e) The equipment is a specialized asset. It is not certain whether it is of such a specialized nature that only the government agency (the lessee) can use it without major modifications.

On balance, the lease will be a finance lease. The most significant terms are that the lessee will pay substantially all of the fair value of the asset and will obtain title to the asset at the end of the lease term.

Question 5

The lease transfers the title of the land and building to the company at the end of the lease. The present value of the minimum lease payments is substantially all of the fair value of the asset. Province C will therefore account for the lease as a finance lease.

At 1 January 20x1 Province C derecognizes the land and building (the underlying asset). It recognizes a lease receivable, measured at recognition at Province C's net investment in the lease. As there is no unguaranteed residual value accruing to Province C, and no variable lease payments, this is the present value of the fixed lease payments of CU25,130 paid annually. The difference between the carrying amount of the land and building and the lease receivable is recognized as a gain on the sale of property, plant and equipment.

Dr Lease Receivable	**CU 325,000**
Cr Land and Building (derecognition)	**CU 275,000**
Cr Gain on Sale of Asset	**CU 50,000**

At 31 December, Province C receives the first lease payment. It recognizes the following amounts for 20x1:

1. Interest earned for the year

   (CU 14,843: 4.567% implicit interest rate x outstanding receivable of CU 325,000)

2. Reduction in the lease liability from the lease repayment

   (CU 10,287: Lease payment received of CU 25,130 less interest earned of CU 14,843)

Dr Cash / Bank	**CU 25,130**
Cr Interest Earned	**CU 14,843**
Cr Lease Receivable	**CU 10,287**

Leases (IPSAS 13)

IPSAS 13, *Leases*, has been withdrawn for periods beginning on or after January 1, 2025. The replacement Standard is IPSAS 43, *Leases*, covered *earlier in this Module*.

Entities that have not yet implemented IPSAS 13 should move directly to IPSAS 43, as IPSAS 13 will have been withdrawn by the time these entities do implement lease accounting under the accrual-basis IPSAS.

This section, covering IPSAS 13, is only intended to be used by those entities that have already implemented IPSAS 13 and are seeking guidance on accounting for some transactions. Such entities should be aware of the need to adopt IPSAS 43 in future. The section on IPSAS 43 highlights the differences between IPSAS 13 and IPSAS 43, which are significant for lessees.

IPSAS 45, *Property, Plant, and Equipment* will replace IPSAS 17, *Property, Plant, and Equipment* for periods beginning on or after January 1, 2025. As IPSAS 45 was issued in 2023, it is unlikely that entities will have implemented IPSAS 45 prior to IPSAS 13 being withdrawn. This section therefore refers to the requirements in IPSAS 17. Any entity that has implemented IPSAS 45 should refer to the equivalent requirements in that Standard rather than IPSAS 17.

Public sector bodies commonly enter into lease agreements with lessors that convey a right to use an asset for an agreed period of time in return for a payment (or series of payments). Public sector bodies may also act as the lessor, conveying a right to use an asset to a third party for an agreed period of time in return for a receipt (or series of receipts).

Classifying Leases

- IPSAS 13, *Leases* requires the classification of a lease as either a finance lease or an operating lease
- Based on whether risks and rewards of ownership substantially transferred
- Risks – losses from idle capacity, technological obsolescence, changes in value because of economic conditions
- Rewards – expectation of service potential or profitable operation, gain from appreciation in value
- Land and buildings elements of a lease classified separately

The primary issue in accounting for leases is the classification of the lease as either a finance lease or an operating lease. IPSAS 13 requires that lease agreements are accounted for in accordance with their economic substance rather than legal form.

Whether a lease is an operating or finance lease depends on whether the risks and rewards of ownership of the related asset lie with the lessee or the lessor.

Risks – include the possibilities of losses from idle capacity, technological obsolescence, changes in value because of economic conditions

Rewards – expectation of service potential or profitable operation over the asset's life, gain from appreciation in value or realization of a residual value.

When a lease includes both land and buildings elements, an entity assesses the classification of each element as a finance or an operating lease separately. A lease could include a finance lease for the building element and an operating lease for the land element.

In determining whether the land element is an operating or a finance lease, an important consideration is that land normally has an indefinite economic life.

The minimum lease payments are allocated between the land and the buildings elements in proportion to the relative fair values of the leasehold interests in those elements of the lease. If the lease payments cannot be allocated reliably between these two elements, the entire lease is classified as a finance lease, unless it is clear that both elements are operating leases, in which case the entire lease is classified as an operating lease.

The land and buildings may be treated as a single unit for the purpose of lease classification where the amount that would initially be recognized for the land element is immaterial. In such a case, the economic life of the buildings is regarded as the economic life of the entire leased asset.

Finance Leases

- Risks and rewards incidental to ownership are substantially transferred
- Depends on substance over form
- Some examples:
    - Ownership of asset transferred to lessee at end of term
    - Option to purchase asset at price well below market value
    - Lease term is for major part of economic life of asset
    - PV of minimum lease payments is fair value of asset
- And others…..

A finance lease transfers substantially all the risks and rewards of ownership of an asset to the lessee. An operating lease does not.

Although the legal form of a lease agreement is that the lessee may acquire no legal title to the leased asset, in the case of finance leases the substance and financial reality are that the lessee acquires the economic benefits or service potential of the use of the leased asset for the major part of its economic life in return for entering into an obligation to pay for that right an amount approximating, at the inception of the lease, the fair value of the asset and the related finance charge.

Whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract. Although the following are examples of situations that individually or in combination would normally lead to a lease being classified as a finance lease, a lease does not need to meet all these criteria in order to be classified as a finance lease:

a) The lease transfers ownership of the asset to the lessee by the end of the lease term;

b) The lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value at the date the option becomes exercisable for it to be reasonably certain, at the inception of the lease, that the option will be exercised;

c) The lease term is for the major part of the economic life of the asset, even if title is not transferred;

d) At the inception of the lease, the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset;

e) The leased assets are of such a specialized nature that only the lessee can use them without major modifications; and

f) The leased assets cannot easily be replaced by another asset.

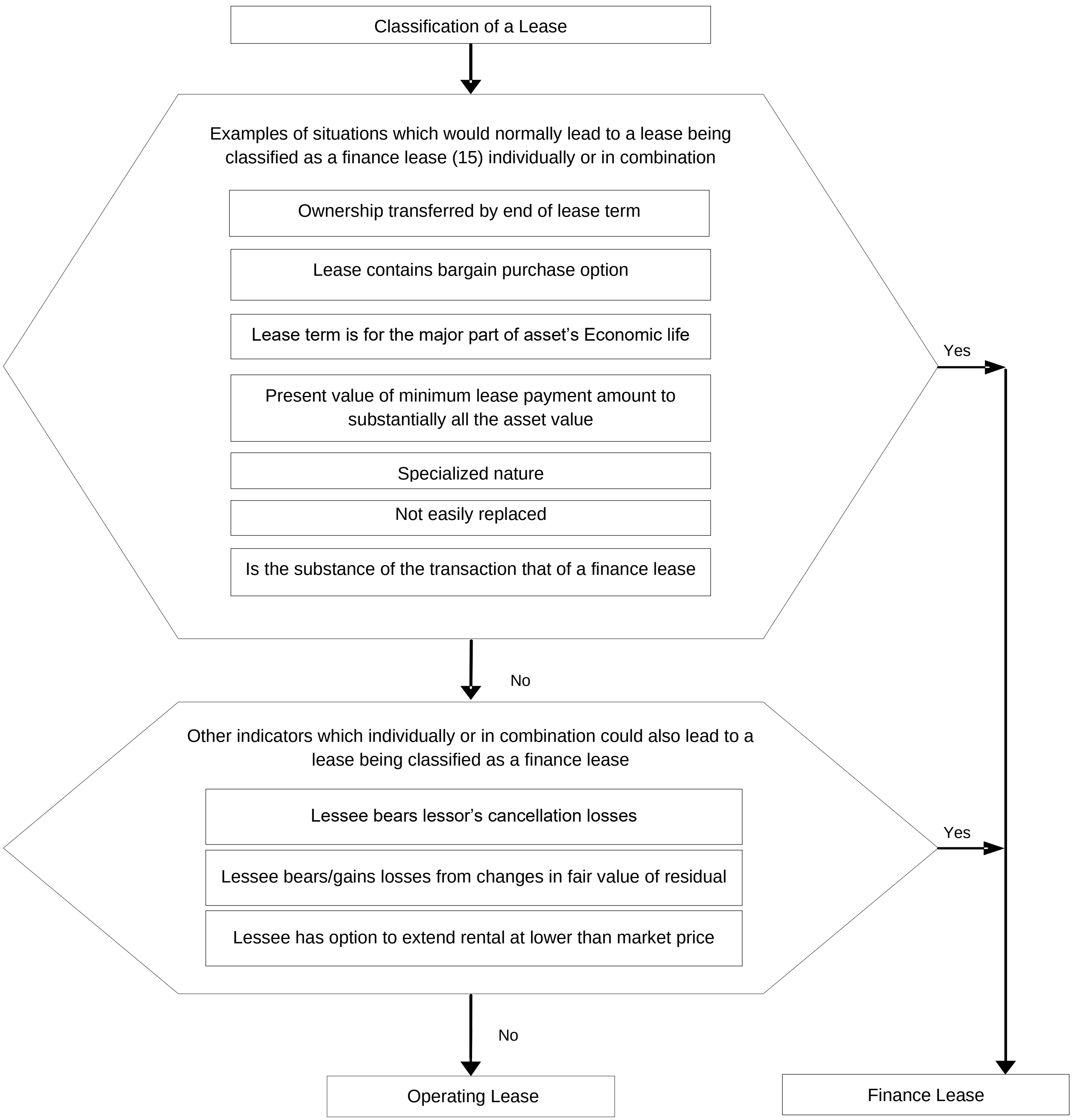
Other indicators:

a) If the lessee can cancel the lease, the lessor's losses associated with the cancellation are borne by the lessee;

b) Gains or losses from the fluctuation in the fair value of the residual accrue to the lessee (for example in the form of a rent rebate equaling most of the sales proceeds at the end of the lease);

c) The lessee has the ability to continue the lease for a secondary period at a rent that is substantially lower than market rent.

The Implementation Guidance that accompanies IPSAS 13 includes the following flowchart to assist with lease classification:



Lease or Service Concession Arrangement (SCA)?

- Lease could be element of broader agreements
- PPPs – especially re long-lived assets and infrastructure assets
- Need to assess whether an SCA
- If not an SCA, and contains identifiable operating/finance lease, IPSAS 13 applies for the lease component of arrangement

Service concession arrangements are common in the public sector. SCAs are discussed later in this module.

Identifiable finance leases may be part of agreements – if not SCAs then use IPSAS 13.

Professional judgment is needed to determine substance of arrangement when not clear.

Lease Accounting-Finance Lease

- Leased assets and lease obligations recognized
- Assets subsequently accounted for as:
  - Property, Plant and Equipment (IPSAS 17)
  - Intangible Assets (IPSAS 31)
- Initially at lower of
  - Fair value of the leased property
  - Present value of minimum lease payments
- Discount rate is interest rate implicit in lease
- Minimum lease payments split between finance expense and reduction of liability

Lessees recognize assets acquired under finance leases as assets, and the associated lease obligations as liabilities in their statements of financial position.

If lease transactions are not reflected in the lessee's financial statements, the assets and liabilities of an entity are understated, thereby distorting financial ratios.

Therefore, a finance lease is recognized in the lessee's financial statements both as an asset and as an obligation to pay future lease payments.

At the start of the lease term, the asset and the liability for the future lease payments are recognized in the financial statements at the same amounts, except for any initial direct costs of the lessee that are added to the amount recognized as an asset.

After initial recognition, assets are accounted for under IPSAS 17 (property, plant and equipment) or IPSAS 31 (intangible assets). This includes transactions such as depreciation and amortization. Where leased assets may be impaired, IPSAS 21 or IPSAS 26 should be applied.

The assets and liabilities are recognized at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease.

The discount rate to be used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease, if this is practicable to determine; if not, the lessee's incremental borrowing rate shall be used.

Minimum lease payments are the payments over the lease term that the lessee is, or can be, required to make, excluding contingent rent, costs for services and, where appropriate, taxes to be paid by and reimbursed to the lessor, together with any amounts guaranteed by the lessee or by a party related to the lessee.

Minimum lease payments are split between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term to produce a constant periodic rate of interest on the remaining balance of the liability.

Example

Scenario:

- An entity enters into a 4-year vehicle lease. The fair value of the vehicle is CU 25,000. Annual lease payments are CU 5,429. The guaranteed residual value is CU 10,000. Vehicles are depreciated on straight line basis over 8 years. The vehicle will be acquired at the end of the lease. Implicit interest rate = 8.5%
- How is the lease accounted for in the financial statements of the entity?

Answer:

The public sector entity recognizes the vehicle and liability at the fair value of the leased vehicle or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease. Minimum lease payments are the payments over the lease term that the lessee is, or can be, required to make, together with any amounts guaranteed by the lessee. In this case, the fair value and present value of the minimum lease payments using the implicit rate of interest in the lease is CU 25,000. Therefore, the amount recognized for the asset and liability is CU 25,000. There are no initial direct costs incurred in connection with the lease tobe included in the carrying amount of the vehicle. The lease payments are apportioned between the finance charg e and the reduction of the outstanding liability using the interest rate implicit in the lease. After initial recognition, the entity accounts for the leased asset as property, plant and equipment in accordance with IPSAS 17. In addition to the finance expense, the finance lease gives rise to a depreciation expense for the vehicle. Since there is reasonable certainty that the entity will obtain ownership of the vehicle upon termination of the lease term, it should be depreciated over the period of expected use life. It is assumed that the residual value of the vehicle is not significant.

Example

Scenario:

The facts of the situation are the same.

The table below shows the allocation of the lease payments.

Note 1: The final payment in year 4 includes the guaranteed value of CU 10,000 assuming the entity purchases the vehicle.

		Year 1 CU	Year 2 CU	Year 3 CU	Year 4 CU
Lease payment (Note 1)	(a)	5,429	5,429	5,429	15,429
Less finance cost @ 8.5% (Note 2)	(b)	2,125	1,844	1,539	1,209
Reduction of liability (a) – (b)	(c)	3,304	3,585	3,890	14,221

Using information from the previous slide and the table, for each year of the lease, what is:

- **a)** The closing balance of the lease liability?
- **b)** The expense related to the leased vehicle?
- **c)** The carrying amount of the leased vehicle?

Use the following chart to answer the questions.

	Year 1 CU	Year 2 CU	Year 3 CU	Year 4 CU
a) Continuity of Liability				
Liability, opening balance				
Reduction of liability				
Liability, closing balance				
b) Expense				
Finance costs				
Depreciation				
Total Expense				
c) Carrying amount of vehicle				
Opening				
Depreciation				
Closing				

		Year 1 CU	Year 2 CU	Year 3 CU	Year 4 CU
Continuity of Liability					
Liability, opening balance	(a)	25,000	21.696	18,111	14,221
Reduction of liability	(b)	3,304	3,585	3,890	14,221
Liability, closing balance	(c)	21,696	18,111	14,221	0
Expense					
Finance costs	(d)	2,125	1,844	1,539	1,209
Depreciation	(e)	3,125	3,125	3,125	3,125
Total Expense	(f)	5,250	4,969	4,664	4,334
Carrying amount of vehicle					
Opening	(g)	25,000	21,875	18,750	15,625
Depreciation	(h)	3,125	3,125	3,125	3,125
Closing	(i)	21,875	18,750	15,625	12,500

Note 1: Implied interest rate using PV – 8.5% per annum. Interest expense is calculated as follows:

- Year 1 – CU 25,000*8.5% = CU 2,125
- Year 2 – CU 21,696*8.5% = CU 1,844
- Year 3 – CU 18,110*8.5% = CU 1,539
- Year 4 – CU 14,221*8.5% = CU 1,209

Lesee Accounting-Operating Lease

- Leased assets and lease obligations **not** recognized
- Lease payments recognized as an expense
  - Straight line basis
  - Other basis only if representative of the time pattern of the user's benefit
  - Does not necessarily reflect cash payments

Lessees do not recognize lease assets or lease liabilities for an operating lease. An operating lease does not transfer substantially all the risks and rewards of ownership of an asset to the lessee.

Lessees recognize lease payments as an expense. By default, expenses are recognized on a straight-line basis. However, if a different basis better reflects the user's consumption of the benefits associated with the lease (referred to as time pattern of the user's benefit in the standard), this basis should be used.

The basis used to recognize lease expenses may differ from the basis on which payments are made. For example, a lease may not require a lessee to make any payments in the first two periods. Such terms provide an incentive for a lessee to enter into a lease. However, this pattern does not reflect the lessee's use of the leased asset, and should not be used as the basis for recognizing lease expenses.

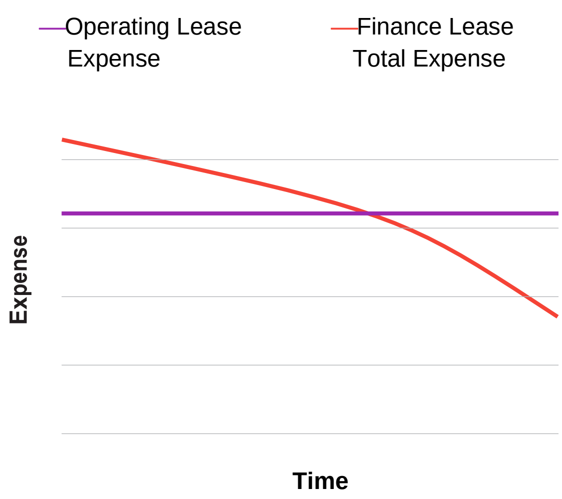
Example

- Municipality A leases an office building for 10 years. The building has an expected life of 50 years. Municipality A accounts for the lease as an operating lease.
- As an incentive to enter into the lease, the lessor does require any payments in the first two years of the lease. The lease payments for the remaining eight years are $100,000 per annum
- What lease expense should Municipality A recognize:
    - In Years 1 and 2
    - In Years 3 to 10?

Answer

The pattern of lease payments does not reflect the pattern of usage of the office building. Lease expenses should be on a straight-line basis, unless another basis better reflects the usage of the asset, which is not the case here. Total lease expenses amount to $800,000 (8 years at $100,000). The lease is for 10 years. The lease expense to be recognized each year is $80,000 ($800,000 divided by 10 years). This is the case for both (a) years 1 and 2 and (b) years 3 to 10.

Finance Leases and Opening Lease Expenses



The chart shows how the expenses recognized vary over time depending on whether a lease is classified as an operating lease or a finance lease. The chart assumes that, under a finance lease, the asset is depreciated over the lease term. Total lease expenses are the same; the timing of those expenses is different.

Operating lease expenses are usually recognized on a straight line basis. Finance lease expenses have two elements. The first is the depreciation of the leased asset. This will often be on a straight line basis, as in this example. The second element is the financing cost. As we saw earlier, this reduces over time as the finance lease liability is reduced.

As a result, expenses recognized under a finance lease will often be higher than under an equivalent operating lease at the start of a lease. Conversely, expenses recognized under a finance lease will often be lower than under an equivalent operating lease at the end of a lease.

Lessor Accounting – Finance Lease

- Property, plant and equipment or intangible asset leased is derecognized
- Lease payments receivable recognized as an asset (receivable)
- Initial recognition at an amount equal to the net investment in the lease
- Recognition of finance revenue reflects a constant periodic rate of return on the net investment

When a lessor leases an asset under a finance lease, the lessor derecognizes that asset. This is not a requirement of IPSAS 13. Rather, it a requirement under the derecognition provisions of IPSAS 17 (property, plant and equipment) or IPSAS 31 (intangible assets). Under a finance lease, the lessor transfers substantially all the risks and rewards of ownership of an asset to the lessee. The lessor, therefore, no longer controls the economic benefits or service potential associated with the asset. It is this loss of control that triggers derecognition.

Lessors recognize lease payments receivable under a finance lease as assets in their statements of financial position. The assets are shown as receivables in the financial statements.

A receivable is initially recognized at an amount equal to the net investment in the lease. The net investment in the lease is the gross investment in the lease discounted at the interest rate implicit in the lease. The gross investment in the lease is the aggregate of:

a) The minimum lease payments receivable by the lessor under a finance lease; and

b) Any unguaranteed residual value accruing to the lessor.

Initial direct costs are often incurred by lessors, and include amounts such as commissions, legal fees, and internal costs that are incremental and directly attributable to negotiating and arranging a lease. They exclude general overheads, such as those incurred by a sales and marketing team. For finance leases, initial direct costs are included in the initial measurement of the finance lease receivable, and reduce the amount of revenue recognized over the lease term. The interest rate implicit in the lease is defined in such a way that the initial direct costs are included automatically in the finance lease receivable; there is no need to add them separately:

The interest rate implicit in the lease is the discount rate that, at the inception of the lease, causes the aggregate present value of:

a) The minimum lease payments; and

b) The unguaranteed residual value to be equal to the sum of (i) the fair value of the leased asset, and (ii) any initial direct costs of the lessor.

Additional requirements apply to manufacturer or trader lessors. These are outside the scope of this training material. IPSAS 13 should be consulted when accounting for manufacturer or trader lessors.

The recognition of finance revenue is based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the finance lease.

Example – Revenue Recognition

Agency X leases an asset to Municipality Y for five years. Agency X's net investment in the lease is $50,000. The annual lease payment is $11,740.95 (implicit interest rate of 5.6%) There is no residual value at the end of the lease period. The table shows how revenue is recognized.

Year	Receivable 1 January	Receipt	Revenue	Receivable 31 December
20X1	50,000.00	(11,740.95)	(2,800.00)	41,059.05
20X2	41,059.05	(11,740.95)	(2,299.31)	31,617.41
20X3	31,617.41	(11,740.95)	(1,770.57)	21,647.03
20X4	21,647.03	(11,740.95)	(1,212.23)	11,118.31
20X%	11,118.31	(11,740.95)	(622.64)	0.00

The lease is accounted for as a finance lease. In this example, the fact that there is no residual value at the end of the lease period is assumed to demonstrate that the lease period covers the whole of the useful life of the asset.

Revenue is calculated my multiplying the receivable balance at 1 January by the implicit interest rate of 5.6%. Taking year 20X1 as an example, $50,000 x 5.6%= $2,800. The balance of the receipt ($11,740.95 – $2,800 = $8,940.95 in year 20X1) reduces the receivable at 31 December. In year 20X1, this gives $50,000 - $8,940.95 = $41,059.05.

Lessor Accounting – Operating Leases

- Leased Assets **not** derecognized
  - Depreciation (IPSAS 17) or amortization (IPSAS 31), consistent with other similar assets
- Lease receipts recognized as revenue
  - Straight line basis
  - Other basis only if more representative of the time pattern in which benefits derived from the leased asset is diminished
  - Does not necessarily reflect cash receipts
- Initial Direct Costs
  - Added to carrying amount of asset
  - Expensed over lease term

When a lessor leases an asset under an operating lease, the lessor does not derecognize that asset. The lessor continues to account for the asset under IPSAS 17 (property, plant and equipment) or IPSAS 31 (intangible assets). Depreciable leased assets should be depreciated (or amortized in the case of intangible assets) in a manner that is consistent with the lessor's normal depreciation policy for similar assets.

Lessors recognize lease receipts as revenue. By default, revenue is recognized on a straight-line basis. However, if a different basis better reflects the manner in which the benefits derived from the leased asset are diminished, this basis should be used.

The basis used to recognize lease revenue may differ from the basis on which receipts are received. For example, a lessor may not require any payments in the first two periods. Such terms provide an incentive for a lessee to enter into a lease. However, this pattern does not reflect how the lessor is earning revenue from the leased asset, and should not be used as the basis for recognizing lease revenue.

Initial direct costs incurred by lessors in negotiating and arranging an operating lease are added to the carrying amount of the leased asset. This amount is recognized as an expense over the lease term on the same basis as the lease revenue. A consequence of the requirement to recognize the initial direct costs as an expense over the lease term is that the initial direct costs may need to be treated as a separate component of the asset. For example, an entity may depreciate specialized equipment over 20 years. If the entity grants an operating lease for the equipment for a five year period, any initial direct costs would be depreciated over a different period than the rest of the asset.

Sale and Leaseback Arrangements

- Transaction results in a finance lease:
    - Any excess of sales proceeds over the carrying amount is deferred and amortized over the lease term
- Transaction results in an operating lease:
    - Sale price equals fair value, gain or loss recognized immediately
    - Sale price below fair value, gain or loss recognized immediately
        - Except where compensated by future lease payments at below market price - deferred and amortized in proportion to the lease payments
    - Sale price above fair value, excess over fair value is deferred and amortized over the period for which the asset is expected to be used

A sale and leaseback transaction involves the sale of an asset and the leasing back of the same asset. The lease payment and the sale price are usually interdependent, because they are negotiated as a package. The accounting treatment of a sale and leaseback transaction depends upon the type of lease involved.

If a sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the carrying amount is not recognized as revenue by the seller-lessee immediately. Instead, the seller-lessee defers the excess and amortizes it over the lease term. This is because the transaction is a means whereby the lessor provides finance to the lessee, with the asset as security. For this reason, it is not appropriate to regard an excess of sales proceeds over the carrying amount as revenue.

If a sale and leaseback transaction results in an operating lease, and it is clear that the transaction is established at fair value, any gain or loss is recognized immediately. There has in effect been a normal sale transaction, so the immediate recognition of any gain or loss is appropriate.

If the sale price is below fair value, any gain or loss is recognized immediately except that, if the loss is compensated by future lease payments at below market price, it is deferred and amortized in proportion to the lease payments over the period for which the asset is expected to be used.

If the sale price is above fair value, the excess over fair value is deferred and amortized over the period for which the asset is expected to be used.

Disclosure Requirements

- Minimum Lease Payments
  - Payable (lessee) or receivable (lessor)
  - Up to one year; between one and five years; and over five years.
- Assets and Liabilities
  - Finance leases only
- Other Lease Terms
  - General description of material / significant leasing terms
  - Contingent rents
  - Subleases (lessees)
  - Unearned revenue, allowance for uncollectable amounts, unguaranteed residual values (finance lease lessors)

The slide summarizes the disclosure requirements for entities with lease transactions. The aim of the disclosures is to enable users of the financial statements to assess:

a) An entity's future commitments under a lease (whether this is to provide assets or make payments); and

b) The corresponding rewards (whether this is the right to use an asset or the right to receive revenue).

The detailed requirements are as follows:

Lessees – Finance Lease

a) For each class of asset, the net carrying amount at the reporting date;

b) A reconciliation between the total of future minimum lease payments at the reporting date, and their present value;

c) In addition, an entity shall disclose the total of future minimum lease payments at the reporting date, and their present value, for each of the following periods:

   (i) Not later than one year;

   (ii) Later than one year and not later than five years; and

   (iii) Later than five years;

d) Contingent rents recognized as an expense in the period;

e) The total of future minimum sublease payments expected to be received under non-cancelable subleases at the reporting date; and

f) A general description of the lessee's material leasing arrangements including, but not limited to, the following:

   (i) The basis on which contingent rent payable is determined;

   (ii) The existence and terms of renewal or purchase options and escalation clauses; and

   (iii) Restrictions imposed by lease arrangements, such as those concerning return of surplus, return of capital contributions, dividends or similar distributions, additional debt, and further leasing.

Lessees – Operating Lease

a) The total of future minimum lease payments under non-cancelable operating leases for each of the following periods:

   (i) Not later than one year;

   (ii) Later than one year and not later than five years; and

   (iii) Later than five years;

b) The total of future minimum sublease payments expected to be received under non-cancelable subleases at the reporting date;

c) Lease and sublease payments recognized as an expense in the period, with separate amounts for minimum lease payments, contingent rents, and sublease payments; and

d) A general description of the lessee's significant leasing arrangements including, but not limited to, the following:

   (i) The basis on which contingent rent payments are determined;

   (ii) The existence and terms of renewal or purchase options and escalation clauses; and

   (iii) Restrictions imposed by lease arrangements, such as those concerning return of surplus, return of capital contributions, dividends or similar distributions, additional debt, and further leasing.

Lessors – Finance Leases

a) A reconciliation between the total gross investment in the lease at the reporting date, and the present value of minimum lease payments receivable at the reporting date. In addition, an entity shall disclose the gross investment in the lease and the present value of minimum lease payments receivable at the reporting date, for each of the following periods:

   (i) Not later than one year;

   (ii) Later than one year and not later than five years; and

   (iii) Later than five years;

b) Unearned finance revenue;

c) The unguaranteed residual values accruing to the benefit of the lessor;

d) The accumulated allowance for uncollectible minimum lease payments receivable;

e) Contingent rents recognized in the statement of financial performance; and

f) A general description of the lessor's material leasing arrangements.

Lessors – Operating Leases

a) The future minimum lease payments under non-cancelable operating leases in the aggregate and for each of the following periods:

   (i) Not later than one year;

   (ii) Later than one year and not later than five years; and

   (iii) Later than five years;

b) Total contingent rents recognized in the statement of financial performance in the period; and

c) A general description of the lessor's leasing arrangements.

Questions and Discussions

That concludes our module on leases. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

Which of the following sentences best describes a finance lease?

- **e)** A lease that transfers ownership of the asset to the lessee by the end of the lease term.
- **f)** A lease that transfers substantially all the risks and rewards incidental to ownership of an asset.
- **g)** A lease where the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.

Question 2

A lessee leases a specialized piece of equipment. The lease term is 10 years, and title to the equipment will transfer to the lessee at the end of the lease term. The economic life of the equipment is 25 years. The present value of the minimum lease payments amounts to 97% of the fair value of the equipment.

Should the lessee classify the lease as a finance lease or an operating lease?

Question 3

Municipality A enters into a finance lease for a fire truck on January 1, 20x1. The lease term is five years and at the end of the lease, title transfers to Municipality A. The economic life of the vehicle is 7 years. The fair value of the fire truck is CU 100,000. The present value of the minimum lease payments is also CU 100,000. Lease payments of CU 23,740 are made on December 31 each year. The implicit interest rate in the lease is 6%. Municipality A incurs CU 5,000 for legal fees in respect of the lease negotiations.

What accounting entries will Municipality A make in 20x1?

Question 4

Municipality A enters into a finance lease for a fire truck on January 1, 20x1. The lease term is five years. The fair value of the fire truck is CU 100,000. The present value of the minimum lease payments is also CU 100,000. Lease payments of CU 23,740 are made on December 31 each year. The implicit interest rate in the lease is 6%.

What interest expense does Municipality A recognize in 20x1, 20x2, 20x3, 20x4 and 20x5?

What is the amount of the outstanding liability at 31 December 20x1; 31 December 20x2; 31 December 20x3; 31 December 20x4 and 31 December 20x5?

Question 5

Government B owns an office building. The carrying amount of the building and the associated land is CU 275,000. Government B has adopted the cost method of accounting for property, plant and equipment.

Government B enters into a lease agreement to lease the land and building to a private sector company. The lease commences on 1 January 20x1 and the lease term is 20 years. At the end of the lease period, title to the land and building will be transferred to the company.

The fair value of the land and building is CU 325,000. The company makes lease payments of CU 25,130 annually on 31 December. This gives an implicit interest rate of 4.567%.

What accounting entries will Municipality A make in 20x1?

Answers to Review Questions

Question 1

The best description of a finance lease is (b) a lease that transfers substantially all the risks and rewards incidental to ownership of an asset.

The transfer of ownership by the end of the lease (answer (a)) and the present value of the minimum lease payments amounting to at least substantially all of the fair value of the leased asset (answer (c)) are both criteria that are used in assessing whether a lease is a finance lease. However, they will not apply to every finance lease.

Question 2

The lessee will need to consider all the criteria specified in IPSAS 13 to determine whether the lease is a finance lease or an operating lease:

- **f)** The lease transfers ownership of the asset to the lessee by the end of the lease term.
- **g)** The lessee does not have the option to purchase the asset at a price that is expected to be sufficiently lower than the fair value. As title to the asset will transfer, this criterion does not apply.
- **h)** The lease term is not for the major part of the economic life of the asset. However, title to the asset will transfer, so the lessee will gain the benefits from the asset for the major part of its economic life.
- **i)** The present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.
- **j)** The equipment is a specialized asset. It is not certain whether it is of such a specialized nature that only the lessee can use it without major modifications.
- **k)** While the equipment is a specialized asset, it is not clear whether it could easily be replaced by another asset.

On balance, the lease is likely to be a finance lease. The most significant terms are that the lessee will pay substantially all of the fair value of the asset and will obtain title to the asset at the end of the lease term.

Question 3

At 1 January 20x1, Municipality A recognizes an asset (fire truck) and a related lease liability. These are measured at the fair value of the fire truck. Municipality A also recognizes the legal fees as part of the cost of the asset as these are initial direct costs of the lessee.

Dr Asset (Fire Truck)	**CU 105,000**
Cr Lease Liability	**CU 100,000**
Cr Cash / Bank	**CU 5,000**

At 31 December 20x1, Municipality A makes the first lease repayment. If recognizes the following amounts for 20x1:

4. Interest expense for the year

   (CU 6000: 6% implicit interest rate x outstanding liability of CU 100,000)

5. Reduction in the lease liability from the lease repayment

   (CU 17,740: Lease repayment of CU 23,740 less interest expense of CU 6,000)

6. Depreciation of the asset (fire truck)

   (Assuming straight line depreciation, CU 15,000: Asset value CU 105,000 / 7 years economic life)

The asset is depreciated over 7 years (the economic life of the asset) rather than 5 years (the term of the lease) because title to the fire truck transfers to Municipality A at the end of the lease term. Municipality A will benefit from the use of the asset for the full economic life of the asset.

Dr Interest expense	**CU 6,000**
Dr Lease Liability	**CU 17,740**
Cr Cash / Bank	**CU 23,740**
Dr Depreciation Charge	**CU 15,000**
Cr Asset (Fire Truck)	**CU 15,000**

Question 4

The following table shows how the lease repayments will be allocated each year, and the movements in the lease liability:

	20x1	20x2	20x3	20x4	20x5
Interest Expense	6,000	4,936	3,807	2,611	
Liability Reductions	17,740	18,804	19,933	21,129	
Movement in Liability					
1 January	0	82,260	63,456	43,523	22,394
Recognitions	100,000	0	0	0	0
Reduction	(17,740)	(18,804)	(19,933)	(21,129)	(22,394)
31 December	82,260	63,456	43,523	22,394	0

Question 5

The lease transfers the title of the land and building to the company at the end of the lease. The present value of the minimum lease payments is substantially all of the fair value of the asset. Government B will therefore account for the lease as a finance lease.

At 1 January 20x1 Government B derecognizes the land and building. It recognizes a lease receivable, measured at recognition at Government B's net investment in the lease. As there is no unguaranteed residual value accruing to Government B, this is the present value of the minimum lease payments. The difference between the carrying amount of the land and building and the lease receivable is recognized as a gain on the sale of property, plant and equipment.

Dr Lease Receivable	**CU 325,000**
Cr Land and Building (derecognition)	**CU 275,000**
Cr Gain on Sale of Asset	**CU 50,000**

At 31 December, Government B receives the first lease payment. It recognizes the following amounts for 20x1:

3. Interest earned for the year

   (CU 14,843: 4.567% implicit interest rate x outstanding receivable of CU 325,000)

4. Reduction in the lease liability from the lease repayment

   (CU 10,287: Lease payment received of CU 25,130 less interest earned of CU 14,843)

Dr Cash / Bank	**CU 25,130**
Cr Interest Earned	**CU 14,843**
Cr Lease Receivable	**CU 10,287**

Service Concession Arrangements

IPSAS 32, Service ConcessionArrangements: Grantor

IPSAS 32, *Service Concession Arrangements: Grantor* prescribes the accounting for service concession arrangements by the grantor, a public sector entity.

Considering the various types of arrangements involving public and private sector entities, the standard focuses on certain types that are service concession arrangements.

A service concession arrangement involves a grantor and operator. A grantor is the entity that grants the right to use a service concession asset to the operator. An operator is the entity that uses the service concession asset to provide public services.

Service concession arrangements involve the use of an asset to provide public services. Examples of service concession assets are: roads, bridges, tunnels, prisons, hospitals, airports, water distribution facilities, energy supply and telecommunication networks, permanent installations for military and other operations, and other non-current tangible or intangible assets used for administrative purposes in delivering public services (e.g. computer hardware and software). If the service concession asset is provided by the operator, it may be (i) an existing asset or (ii) it may be constructed, developed, or acquired from a third party. The service concession asset may be provided by the grantor. It may be an (i) existing asset of the grantor or (ii) an upgrade of an existing asset. (IPSAS 32, paragraph 8)

The main accounting issue in service concession arrangements is whether the grantor should recognize a service concession asset. The corollary issue is accounting for the credit when the grantor recognizes a service concession asset.

Service Concession Arrangement

- A binding arrangement between a grantor and an operator in which
  - The operator uses the service concession asset to provide a public service on behalf of the grantor for a specified period of time; and
  - The operator is compensated for its services over the period of the service concession arrangement

Service concession arrangements are concluded by way of a binding arrangement, which may include contracts or similar arrangements that confer similar rights and obligations as if they were in the form of a contract. Under the concession service arrangement,the operator uses the service concession asset to provide public services on behalf of the grantor in return for compensation. Compensation could be in the form of payments or the right to earn revenue from third-party users of the service.

Service Concession Assets Definition

- An asset used to provide public services in a service concession arrangement that:
  - Is provided by the operator which:
    - The operator constructs, develops or acquires form a third party; or
    - Is an existing asset of the operator; or
  - Is provided by the grantor which
    - Is an existing asset for the grantor; or
    - Is an upgrade to an existing asset of the grantor

Grantor Recognizes Asset When

Grantor controls:

a) Services provided by operator, to whom provided and price
b) A significant residual interest in asset at end of arrangement

Asset provided by operator

An upgrade of existing asset

Existing asset of grantor

Initially measured at fair value

Reclassified service concession asset

Accounted for accordance with IPSAS 45 or IPSAS 31

Under IPSAS 32, recognition is based on a determination that the grantor has control over the economic benefits and the service potential of the service concession asset. The grantor recognizes an asset provided by the operator and an upgrade to an existing asset of the grantor as a service concession asset if:

a) The grantor controls or regulates what services the operator must provide with the asset, to whom it must provide them, and at what price; and

b) The grantor controls—through ownership, beneficial entitlement or otherwise—any significant residual interest in the asset at the end of the term of the arrangement.

There may be instances when condition (b) is not met such as when the service concession asset is specialized and the term of the service concession arrangement may be equivalent to the life expectancy of the service concession asset. IPSAS 32 applies to an asset used in a service concession arrangement for its entire useful life (a "whole-of-life" asset) if the conditions in (a) are met.

The grantor initially measures the service concession asset that is provided by the operator and an upgrade to an existing asset of the grantor at its fair value.

IPSAS 45 and IPSAS 31 require initial measurement of an asset acquired in an exchange transaction at cost, which is the cash price equivalent of the asset. For exchange transactions, the transaction price is considered to be fair value.

The type of compensation exchanged between the grantor and the operator affects how the fair value of the service concession asset is determined on initial recognition. Where payments are made by the grantor to the operator, payments and other consideration required by the arrangement are allocated at the inception of the arrangement or upon a reassessment of the arrangement into those for the service concession asset and those for other components of the service concession arrangement (e.g., maintenance and operation services).

The fair value on initial recognition of the asset represents the portion of the payments paid to the operator for the asset. The cash price equivalent of the service concession asset is the present value of the service concession asset component of the payments.

When the asset and service components of payments under a service concession arrangement are inseparable, the fair value must be determined using estimation techniques. For example, a grantor may estimate the payments related to the asset by reference to the fair value of a comparable asset. Alternatively, the asset component could be estimated by estimating the payments for the other components in the service concession arrangement by reference to comparable arrangements and then deducting these payments from the total payments under the arrangement.

The grantor may compensate the operator for the service concession asset by other means such as granting the operator the right to earn revenue from third-party users of the service concession asset (collection of tolls on a road) or another revenue-generating asset. An example of the latter might be when the operator is given access to the revenues from a private parking facility adjacent to a hospital used by the grantor to treat public patients.

In these cases, the grantor does not incur a cost directly for acquiring the service concession asset. The types of transactions are non-monetary exchange transactions. Regardless, the grantor needs to initially measure the asset component at fair value. IPSAS 45 and IPSAS 31, as appropriate, provide guidance on measurement of assets acquired in a non-monetary exchange transaction. IPSAS 46, *Measurement* provides guidance on measuring fair value. Where an asset is acquired through a non-monetary exchange transaction, its cost should be measured at its fair value as at the date of acquisition. The measurement at recognition of a service concession asset at its fair value does not constitute a revaluation under IPSAS 45 or IPSAS 31. The revaluation requirements in IPSAS 45 and IPSAS 31 only apply where the grantor elects to measure an item of property, plant, and equipment or an intangible asset using the current value model in subsequent reporting periods.

The arrangement may involve an existing asset of the grantor. Existing assets of the grantor that are used in the service concession arrangement are reclassified as service concession assets. Only when the service concession arrangement involves upgrading an existing asset of the grantor that results in an increase in future economic benefits or service potential of the asset, is it measured initially at fair value in accordance with IPSAS 32.

After initial recognition or reclassification, service concession assets are accounted for in accordance with IPSAS 45, *Property, Plant and Equipment* or IPSAS 31, *Intangible Assets*, as appropriate.

IPSAS 45 and IPSAS 31 will need to be referenced for:

- **a)** derecognition of the asset (for example, when the asset is transferred to the operator on a permanent basis);
- **b)** recognition criteria when a service concession asset is constructed or developed over an extended period;
- **c)** measurement when it is non-monetary exchange of assets;
- **d)** measurement after initial recognition
- **e)** asset componentization;
- **f)** depreciation/amortization; and
- **g)** required disclosures.

Service concession assets are disclosed in the relevant class of assets in accordance with IPSAS 45 and IPSAS 31. They may also be reported with other service concession assets when service concession arrangements are reported in aggregate. For example, for the purposes of IPSAS 45 a toll bridge may be included in the same class as other bridges. For the purposes of the disclosure requirements in IPSAS 32, the toll bridge may be included with service concession arrangements reported in aggregate as toll roads.

After initial recognition, IPSAS 21, *Impairment of Non- Cash-Generating Assets*, and IPSAS 26, *Impairment of Cash-Generating Assets*, are also applied in considering whether there is any indication that a service concession asset is impaired.

City Service Concession Asset

Waste Water Treatment Service Concession Arrangement Payments			
	Monthly	Total Annual	Present Value
Capital Component	CU 130	CU 1, 560	CU 15, 500
Operating and maintenance	CU 99	CU 1, 188	CU 11, 731
Total	CU 229	CU 2, 748	CU 27, 231

1. How is the waste water treatment facility measured by the City? Explain
2. Would your answer be different if the payments were not separated between components? Explain

In making the decision to use a service concession arrangement or a traditional procurement approach and operate the waste treatment facility in-house, the City made the following cost comparison.

	Service Concession Arrangement			In-house
Description	Monthly Payment (000s CU)	Total Amount (000s CU)	Present Value (000s CU)	Present Value (000s CU)
Capital Cost (fair value)	130	1,560	15,500	18,200
Operating	99	1,188	11,731	21,500
Total	229	2,748	27,231	39,700

*The discount rate is 8.12%. This is the estimated private sector weighted average cost of capital for projects with a similar scale, business type and comparable risk profile

Answers:

1. A service concession asset that qualifies for recognition is measured at its cost. The cost of a service concession asset is the cash price equivalent. Where payments are made by the grantor to the operator, the fair value on initial recognition of the asset represents the portion of the payments paid to the operator for the asset. The cash price equivalent of the service concession asset is the present value of the component of the payments for the service concession asset. The City recognizes a service concession asset at CU 15,500. The operation and maintenance payments are recognized as an expense when incurred by the City.

2. No. When the asset and service components of payments under a service concession arrangement are inseparable, the fair value must be determined using estimation techniques. The City may estimate the payments related to the asset by reference to the fair value of a comparable asset. Alternatively, the City may back into the asset component by estimating the payments for the operation and maintenance and then deducting these payments from the total payments.

When the grantor recognizes a service concession asset provided by the operator or that is an upgrade to an existing asset, it also recognizes a liability. The grantor has an obligation as a result of the binding arrangement to compensate the operator for its control of a service concession asset. The liability recognized is initially measured at the same amount as the service concession asset adjusted by, if applicable, the amount of any other consideration (e.g., cash) from the grantor to the operator, or from the operator to the grantor.

Recognition of Liabilities

Measured initially at the same amount as service concession asset

Unconditional obligation to pay specified and determinable amount

Operator granted right to earn revenue from third-party users

Financial Liability Model - treated as financial liability

Grant of Right to the Operator

Model - unearned revenue liability

Payments allocated to liability, finance charges and for services

Revenue earned reduces liability

The nature of the liability recognized is based on the nature of the consideration exchanged between the grantor and the operator. When the grantor compensates the operator for the service concession asset by making payments to the operator, it is a financial liability and the “financial liability” model is used to measure it. When the grantor compensates the operator by granting the right to earn revenue from third-party users of the service concession asset or access to another revenue-generating asset, the liability is measured using the “grant of right model”.

Financial Liability Model

Where the grantor has an unconditional obligation to pay a specified amount of cash or another financial asset to the operator for the construction, development, acquisition, or upgrade of a service concession asset, the grantor accounts for the liability recognized as,a financial liability. Similarly, the grantor has a financial liability if it has guaranteed to pay the operator the shortfall between amounts received by the operator from users of the service and specified or determinable amounts. The requirements in IPSAS 28, IPSAS 30 and IPSAS 41 apply to the financial liability recognized.

Payments paid to the operator are allocated according to their substance as a reduction in the liability recognized, an imputed finance charge, and charges for services provided by the operator. The finance charge and charges for services provided by the operator are accounted for as expenses.

Grant of Right to the Operator Model

Under this model, the grantor does not have an unconditional obligation to pay cash or another financial asset to the operator. As the recognition of the service concession asset results in an increase in the net assets/equity of the grantor, the credit represents revenue. The service concession arrangement is an exchange transaction in which the grantor has received a service concession asset in exchange for granting a right (a license) to the operator to charge the third party users of the public service that it provides on the grantor’s behalf, or access to another revenue generating asset. Therefore, the exchange is accounted for as a revenue generating transaction by the grantor. As the right granted to the operator is effective for the period of the service concession arrangement, the grantor does not recognize revenue from the exchange immediately.

Instead, until the criteria for recognition of revenue have been satisfied, the grantor recognizes a liability equivalent to the unearned portion of the revenue arising from the exchange of assets between the grantor and the operator. The amount initially recognized is still measured at the same amount as the service concession asset adjusted by the amount of any other consideration (e.g., cash) exchanged. The grantor recognizes revenue and reduces the liability according to the economic substance of the service concession arrangement. That is, the earned revenue is recognized over the term of the service concession arrangement.

Divided Arrangements

There may be instances when the grantor pays for the service concession asset partly by incurring a financial liability and partly by the grant of a right to the operator. The amount initially recognized for the total liability is measured at the same amount as the service concession asset adjusted by the amount of any other consideration (e.g., cash) exchanged. However, it is necessary to account separately for each part of the total liability.

City Liability

Scenario:

The City of Anywhere (grantor) has entered into a service concession arrangement in which it makes a predetermined stream of payments to a private sector entity (operator) for waste water treatment. The payments have been allocated in the service concession arrangement between capital and service components. The term of the arrangement is 21 years from the date of commissioning. The payments commence in the first month of the second year when the service concession asset is commissioned and receiving waste water. No payments are due during the construction of the service concession asset and under the terms of the service concession arrangement, the City does not control the asset until it is brought into service.

Wastewater Treatment Service Concession Arrangement Payments				
	Payments		Present Value	
	Monthly	Annual	Start Year 2	End Year 2
Capital Component	CU 130	CU 1,560	CU 15,500	CU 15, 196
Operating and maintenance	CU 99	CU 1,188		
Total	CU 229	CU 2,748		

*The discount rate is 8.11%. This is the estimated private sector weighted average cost of capital for projects with a similar scale, business type and comparable risk profile

Questions:

1. Using the information in the table, what entries are made to record the service concession asset and liability? Explain

2. What entries are made to allocate payments made in year 2? Explain

Answers:

1. Entries to record the service concession asset beginning of Year 2 when it is in service and receiving waste water for treatment according to the terms of service concession arrangement. No payments are made by the City, and the City does not control the asset, during construction

	Debit (000sCU)	Credit (000s CU)
Service concession asset (separate class under IPSAS 17) **(PV of predetermined series of payments allocated to the capital component**	15,500	
Service concession financial liability **(measured at the same amount as the service concession asset)**		15,500

2. Entries to allocate the series of predetermined payments made during Year 2 of the service concession arrangement.

	Debit (000sCU)	Credit (000s CU)
Financial liability (portion that reduces liability = CU 15,500 – CU 15, 196)	304	
Finance charges expense (capital component less liability reduction CU 1, 560 – CU 304) **(=CU 15, 500 x 8.11%)**	1,256	
Cash		1,560
Operating expense	1,188	
Cash		1,188

Other Issues

- Other Liabilities, Commitments, Contingent Liabilities and Contingent Assets
- Other Revenue
  - Operator compensation to grantor (rent, upfront payments, stream of payments and other consideration)
  - Revenue-sharing provisions
- Refer to IPSAS 32 Application Guidance

The following issues may require direct reference to IPSAS 32 and other relevant IPSASs.

Other Liabilities, Commitments, Contingent Liabilities and Contingent Assets

Service concession arrangements may include various forms of financial guarantees or performance guarantees. Certain guarantees made by a grantor may meet the definition of a financial guarantee contract. The grantor applies IPSAS 28, IPSAS 30 and IPSAS 41 in accounting for the guarantee. Guarantees and commitments that do not meet the requirements in IPSAS 28 and IPSAS 41 relating to financial guarantee contracts or are not insurance contracts are accounted for in accordance with IPSAS 19.

Other Revenue

The operator may compensate the grantor for access to the service concession asset with a series of predetermined inflows of resources. The compensation, in addition to the service concession asset, may be in the form of rent, upfront payments, a stream of payments, a reduction in the series of payments to be made by the grantor, or other consideration. There may be a revenue-sharing provision in the arrangement with the operator.

The grantor generally accounts for these payments in accordance with IPSAS 47, *Revenue*. The timing of the revenue recognition is determined by the terms and conditions of the service concession arrangement.

Presentation and Disclosures

- A description and significant terms of the arrangement
- The nature and extent of rights under the arrangement
- Carrying amount of service concession assets
- Obligations to provide operator access to service concession assets
- Changes in an arrangement
- Disclosures required by other IPSASs

Presentation of information in the financial statements should be in accordance with IPSAS 1, *Presentation of Financial Statements*. For example, the finance charge determined under IPSAS 32 is included in the finance costs which IPSAS 1 requires to be presented separately in the statement of financial performance.

All aspects of a service concession arrangement are considered in determining the appropriate disclosures in the notes. At a minimum, the grantor should disclose:

a) A description of the arrangement;

b) Significant terms of the arrangement that may affect the amount, timing, and certainty of future cash flows;

c) The nature and extent of rights under the service concession arrangement, the carrying amount of service concession assets, obligations to provide the operator with access to service concession assets or other revenue- generating assets; and

d) Changes in an arrangement during the reporting period.

The disclosures are provided individually for each material service concession arrangement or in aggregate for service concession arrangements involving services of a similar nature (e.g., toll collections, telecommunications or water treatment services).

The grantor also applies the relevant presentation and disclosure requirements in other IPSASs as they relate to assets, liabilities, revenues, and expenses recognized under IPSAS 32. For example, a grantor makes the disclosures required by IPSAS 45 for service concession assets that, after initial recognition, are accounted for as property, plant and equipment in accordance with IPSAS 45.

Questions and Discussions

That concludes our module on service concession arrangements. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

A government has been planning a major highway to by-pass a large metropolitan area for a number of years. It acquired the right-of-way, but the government's normal process for highway construction was not possible given its financial constraints. It entered into a 99 year lease of the right-of-way with a consortium of private companies that would design, build, finance operate and maintain the highway. The arrangement gave the consortium unlimited control over the highway and its tolls.

To meet traffic volumes, the consortium has the ability to expand the highway and raise toll rates without first consulting the government. The arrangement, although allowing the government the ability to build a light transit system along the right-of-way, restricts it from building any nearby freeways which might potentially compete with the consortium.

Is the arrangement a service concession arrangement? Explain.

Question 2

A municipality (the grantor) entered into the service concession arrangement for its waste water facility on January 1, 20X0. Under the arrangement, the operator will provide waste water services to the public for 20 years, for which the municipality will pay the operator. The waste water facility will be transferred to the municipality at the end of the 20 year service concession arrangement. The facility has an expected useful life of 40 years. The municipality measures property, plant and equipment using the historical cost model.

Payments are to be made annually, at the end of each year. The total annual payment is CU90,000.

The annual payment is a single payment covering the repayment of the liability for the capital asset, the finance charge and the services provided by the operator. Individual elements are not separately identified.

The municipality does not know the fair value of the facility. However, the municipality could buy the services being provided under the service concession arrangement for CU14,515 annually. The municipality's incremental cost of borrowing is 6.995%

a) How should the municipality measure the waste water facility on initial recognition?

b) What amounts would the municipality include in its statement of financial position as at December 31, 20X0 for:

(i) The waste water facility asset: and

(ii) The related liability?

c) What expenses would the municipality recognize in its statement of financial performance for 20X0 in respect of the service concession arrangement?

Answers to Review Questions

Question 1

The arrangement involves the use of an asset to provide public services. The operator uses the asset to provide public services on behalf of the grantor in return for compensation in the form of a grant of the right to earn revenue from third-party users of the service.

What distinguishes a service concession arrangement within the scope of IPSAS 32 form other arrangements is the concept of control of the asset. Arrangements outside the scope of IPSAS 32 are those that involve service components where the asset is not controlled by the grantor. IPSAS 32 applies when the grantor:

a) controls or regulates the services provided by the operator, and

b) controls any significant residual interest in the service concession asset at the end of the term of the arrangement.

In this instance the government does not meet either condition. The arrangement gave the consortium unlimited control over the highway and its tolls. There is no significant residual interest in the service concession asset. Although the consortium is expected to maintain the highway throughout the term of the arrangement, the term exceeds the expected life of the asset. The consortium maintains and expands the asset through the toll revenue which it controls.

Question 2

a) The municipality should recognize the waste water facility asset at its fair value. As it does not know the fair value of the asset, it will need to estimate this from the information that it does have.

The annual payment it is required to make is CU90,000. The municipality knows that the fair value of the services being provided under the service concession arrangement is CU14,515. It follows that the remaining payment of CU75,485 relates to the repayment of the liability and the related finance charge. Using its incremental borrowing cost of 6.995%, the municipality can calculate the net present value of 20 annual payments of CU75,485. The net present value of these 20 annual payments of CU75,485 using a 6.995% discount rate is CU800,000. The municipality therefore measures the waste water facility asset at CU800,000 on initial recognition. The municipality will also recognize a liability for the same amount.

Hint: the net present value can be calculated in a spreadsheet using the NPV function.

b) (i) On initial recognition, the municipality measures the waste water facility asset at CU800,000. The asset has an expected life of 40 years. Assuming straight line depreciation, the municipality will recognize CU20,000 depreciation in 20X0. The carrying amount of the asset will therefore be CU780,000 at December 31, 20X0.

(ii) On initial recognition, the municipality measures the related liability at CU800,000. From the answer to part (a) above, the municipality knows that CU75,485 of the payment made in 20X0 relates to the financing expense and the reduction in the liability. The financing expense is calculated at CU55,960 (CU800,000 x 6.995%). Consequently, the reduction in the liability is the remaining element of the payment, i.e. CU19,525. The liability at December 31, 20X0 will therefore be CU780,475 (CU800,000 – CU19,525).

c) The municipality will recognize three separate expenses in 20X0 in respect of the service concession arrangement:

	CU
Depreciation (calculated in part (b)(i) of this answer)	20,000
Financing expense (calculated in part (b)(ii) of this answer)	55,960
Cost of services provided (fair value of the services provided as given in the question)	14,515
TOTAL	90,475

Inventories

Inventories IPSAS 12

Definition

- Materials or supplies to be
  - Consumed in a production process
  - Consumed or distributed in the rendering of services
- Items held for sale or distribution in the ordinary course of operations (finished goods, land held for sale)
- Work-in-progress

Inventories are assets:

a) In the form of materials or supplies to be consumed in the production process;

b) In the form of materials or supplies to be consumed or distributed in the rendering of services (for example, educational books produced by a health authority for donation to schools or educational/training course materials);

c) Held for sale or distribution in the ordinary course of operations including land and other property held for sale; or

d) In the process of production for sale or distribution.

In some public sector entities, inventories will relate to the provision of services rather than goods purchased and held for resale or goods manufactured for sale. In these cases, inventories are likely to be an accumulation of work-in-progress cost for each stage in the service provision.

Examples of Inventories

- Common examples of inventories in the public sector include:
  - Military inventories (e.g., ammunition, missiles, rockets & bombs)
  - Consumables
  - Finished goods
  - Land and property held for sale
  - Maintenance materials
  - Spare parts
  - Strategic stockpiles such as energy reserves
  - Stocks of unused postal stamps and currency
  - Work-in-progress

Typical inventories of public sector bodies encompass goods purchased and held for resale including, for example, merchandise purchased by an entity and held for resale, or land and other property held for sale. In many public sector entities, inventories will relate to the provision of services rather than goods purchased and held for resale or goods manufactured for sale. To a lesser extent, inventories in public sector may include materials and supplies awaiting use in the production process.

Public sector entities may hold goods purchased or produced by an entity, which are for distribution to other parties for no charge or for a nominal charge, for example, educational books produced by a health authority for donation to schools. In the case of a service provider, inventories include the costs of the service, for which the entity has not yet recognized the related revenue.

Costs incurred to fulfill a binding arrangement that does not give rise to inventories (or assets within the scope of another Standard) are accounted for in accordance with IPSAS 47, *Revenue* (see Module 4).

Measurement

- Lower of cost and net realizable value (except as below)
- Fair value when acquired in non-exchange transaction
- Lower of cost and current replacement cost when held for distribution or consumption in production of goods to be distributed at no or nominal charge

Inventories should be measured at the lower of cost and net realizable value.

The cost of inventories includes all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition.

The costs of purchased inventories include (a) the purchase price, (b) import duties and other taxes (other than those subsequently recoverable by the entity from the taxing authorities), and (c) transport, handling, and other costs directly attributable to the acquisition of finished goods, materials, and supplies. Trade discounts, rebates, and other similar items are deducted in determining the costs of purchase.

The cost of manufactured inventories includes costs directly related to the units of production including directly attributable allocable fixed and variable production overheads.

IPSAS 12 provides guidance on the cost of conversion (manufactured inventories). Costs include costs directly related to the units of production, such as direct labor and allocation of fixed and variable production overheads. The guidance is complex and beyond the scope of this training. It would be rare that public sector entities would be involved in manufacturing. Participants from entities who are involved in manufacturing should refer directly to IPSAS 12 for more guidance.

Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. Costs normally excluded are storage costs, administrative overheads, selling costs and borrowing costs. They are recognized as expenses in the period in which they are incurred. IPSAS 5, *Borrowing Costs*, identifies limited circumstances when borrowing costs are included in the cost of inventories.

An entity may purchase inventories on deferred settlement terms. When the arrangement effectively contains a financing element, that element, for example a difference between the purchase price for normal credit terms and the amount paid, is recognized as interest expense over the period of the financing.

The cost of land held for sale includes the allocation of costs, both fixed and variable, incurred in the development of undeveloped land held for sale into residential or commercial landholdings. Such costs could include costs relating to landscaping, drainage, pipe laying for utility connection, etc. It may include borrowing costs when development requires a substantial period of time to bring it to a condition for sale.

Net realizable value refers to the net amount that an entity expects to realize from the sale of inventory in the ordinary course of operations. Net realizable value is the estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange, or distribution. Fair value reflects the price at which an orderly transaction to sell the same inventory in the principal (or most advantageous) market for that inventory would take place between market participants at the measurement date. Net realiazable value is an entity-specific value; fair value is not. Net realizable value for inventories may not equal fair value less costs of disposal.

Write down of inventories below cost to net realizable value is consistent with the view that assets are not to be carried in excess of the future economic benefits or service potential expected to be realized from their sale, exchange, distribution, or use.

The cost of inventories may not be recoverable if those inventories are damaged, if they have become wholly or partially obsolete, or if their selling prices have declined. Net realizable value is an entity specific value.

If inventories are written down to net realizable value, a new assessment is made of net realizable value in each subsequent period. When the circumstances that previously caused inventories to be written down below cost no longer exist, or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of the write down is reversed (i.e., the reversal is limited to the amount of the original write down) so that the new carrying amount is the lower of the cost and the revised net realizable value.

The amount of any write down of inventories and all losses of inventories is recognized as an expense in the period the write down or loss occurs. The amount of any reversal of any write down of inventories is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

In exchange transactions, an entity would acquire inventory items and directly give approximately equal value (primarily in the form of cash, goods, services, or use of assets) to another entity in exchange. The consideration exchanged is presumed to approximate the fair value of the inventory.

By contrast in a non-exchange transaction, an entity would receive inventory items without directly giving approximately equal value in exchange. For example, an international aid agency may donate medical supplies to a public hospital in the aftermath of a natural disaster.

Under such circumstances, the cost of inventory is its fair value as at the date it is acquired. Fair value reflects the price at which an orderly transaction to sell the same inventory in the principal (or most advantageous) market for that inventory would take place between market participants at the measurement date.

Inventories are measured at the lower of cost and current replacement cost where they are held for:

a) Distribution at no charge or for a nominal charge; or

b) Consumption in the production process of goods to be distributed at no charge or for a nominal charge.

A public sector entity may hold inventories of goods that it intends to distribute at no charge or for a nominal amount. For example, a government may have an inventory of educational/training course materials that it intends to distribute at no charge. In these cases, the future economic benefits or service potential of the inventory for financial reporting purposes is reflected by the amount the entity would need to pay to acquire the economic benefits or service potential if this was necessary to achieve the objectives of the entity.

Current replacement cost is the cost the entity would incur to acquire the asset on the reporting date.

If such inventories cannot be acquired in the market place, an estimate of replacement cost will need to be made.

Some public sector entities are involved in rendering services over time. Revenue from such transactions is recognized by reference to the satisfaction of conpliance obligations, either at a point in time or over time.

Examples of services rendered by public sector entities for which revenue is typically received in exchange may include the provision of housing, management of water facilities, management of toll roads, processing of court cases, science and technology research and management of transfer payments. (Guidance on recognition of revenue can be found in *IPSAS 47, Revenue*).

The inventories of these public sector service entities will relate to providing services rather than goods purchased and held for resale or goods manufactured for sale. Costs incurred to fulfill a binding arrangement that does not give rise to inventories (or assets within the scope of another Standard), are accounted for in accordance with IPSAS 47.

The inventories of a public sector entity that is involved in rendering services (whether on a commercial basis or as a transfer expense) will consist of the accumulated costs associated with a service that may be provided over an extended period of time or in stages. Inventories of work-in-progress include the costs of the service for which the entity has not yet recognized the related revenue (if any).

To the extent that service providers have inventories, they measure them at the costs of their production. These costs consist primarily of the labor and other costs of personnel directly engaged in providing the service, including supervisory personnel and attributable overheads.

The costs of labor not engaged in providing the service are not included. For example, labor and other costs relating to sales and general administrative personnel are not included, but are recognized as expenses in the period in which they are incurred. The cost of inventories of a service provider does not include surplus margins or non-attributable overheads (for example administrative overheads) that are often factored into prices charged by service providers.

Cost Components Example 1

- An entity that maintains an inventory of lubricant makes the following transaction
  - Purchase = 10,000 liters @ CU5.00/liter
  - Container deposit = CU 1,000
  - Value added tax (refundable) = 10%
  - Shipping and handling = CU 1,500
  - Supplier discount = 5% on orders of 1000 liters or more
- What is the cost of the inventory? Explain.

Answer:

Description	Calculation	Total
Cost of lubricant	10,000ltrs*CU 5.00	CU 50,000
Less supplier discount	CU 50,000*5%	CU 2,500
Subtotal		CU 47,500
Shipping and Handling		CU 1,500
Total Cost		CU 49,000

The container deposit and refundable value added tax are not included in the cost.

Cost Components Example 2

- At the fiscal year end a government has an inventory of educational preventive health care pamphlets, printed in-house, that it intends to distribute to citizens free of charge as part of a campaign aimed at reducing citizens' dependence on the health care system. At the fiscal period end, it values the inventory at cost including direct labor, materials and attributable fixed and variable overheads.
- Is this the correct valuation? Explain

Answer:

The proposed measurement of the inventory at cost including direct labor and directly attributable fixed and variable production overheads may not be correct. The pamphlets will be distributed at no charge. Inventories shall be measured at the lower of cost and current replacement cost where they are held for distribution at no charge or for a nominal charge.

Current replacement cost is the cost the entity would incur to acquire the asset on the reporting date. The government would have to test the current replacement cost against its cost of production to determine the appropriate value.

Inventory Costing Formulas

- Inventories comprised of
  - Unique items or goods and services produced and segregated for specific projects shall be valued individually
  - Large numbers of interchangeable items valued using FIFO or weighted average cost formulas
- Apply cost formula consistently

The cost of inventories of items that are not ordinarily interchangeable, and goods or services produced and segregated for specific projects, should be assigned by using specific identification of their individual costs.

When there are large numbers of items of inventory that are ordinarily interchangeable costs should be assigned by using the first-in, first-out (FIFO) or weighted average cost formulas.

The FIFO formula assumes that the items of inventory that were purchased first are consumed, transferred or sold first, and consequently the items remaining in inventory at the end of the period are those most recently purchased or produced.

Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period, and the cost of similar items purchased or produced during the period.

The cost formula should be consistently applied to all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified.

Measurement Exercise

At the fiscal period end, a government has an inventory of energy reserves. It uses weighted average method of valuing the inventory. There are no costs for the sale, exchange, or distribution.

	Units	CU
Inventory, beginning of period	100	2,000
Purchased during period	50	1,750
Storage cost		500
Inventory, end of period	150	

At the fiscal period end the units are trading at CU 20. What is the value of the inventory at period end?

Explain.

Answer:

	Calculation	CU
Inventory at cost, at the end of the fiscal period	Closing inventory weighted avg cost 150 units*CU25	3,750
Net realizable value at fiscal periods end	150 units @ CU 20	3,000
Value of inventory at the fiscal period end	Lower of cost or net realizable value	3,000
Write down to net realizable value through surplus or deficit	Cost CU 3, 750-net realizable value CU 3, 000	750

Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period, and the cost of similar items purchased or produced during the period. Costs normally excluded are storage costs, administrative overheads, selling costs and borrowing costs. Inventories shall be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange, or distribution. The amount of the write down is expensed in the period.

Expense Recognition

- When sold, exchanged, or distributed the carrying amount is expensed in the period in which related revenue is recognized
- If no related revenue, expensed when the goods are distributed or services rendered
- Service providers recognize expense when services are rendered or billed
- Write-downs or losses expensed when occur

When inventories are sold, exchanged, or distributed, the carrying amount of those inventories is recognized as an expense in the period in which the related revenue is recognized.

If there is no related revenue (i.e., the transaction gives rise to a transfer expense), the expense is recognized when the goods are distributed or the related service is rendered.

For a service provider, the point when inventories are recognized as expenses normally occurs when services are rendered, or upon billing for chargeable services.

Some inventories may be allocated to other asset accounts, for example, inventory used as a component of self- constructed property, plant, or equipment. Inventories allocated to another asset in this way are recognized as an expense during the useful life of that asset.

Expense Recognition Exercise

A public sector entity has an inventory of granular material for use in the maintenance of roads within its jurisdiction. The following table summarizes transactions related to the inventory of granular material for the period.

Date	Description	Units	Total Cost (CU)	Unit cost (CU)
January 1	Opening balance	1,000	10,000	10
February 2	Issued	(200)		
February 25	Purchased	400	6,000	15
March 2	Purchased	200	4,000	20
March 25	Issued	(900)		
March 31	Closing Inventory	500		

What is the expense for the period and the closing balance of the inventory using the FIFO cost method?

Answer:

Using the FIFO method

Date	Description	Units	Calculation		Total cost (CU)	Unit cost (CU)	Expense (CU)
January 1	Opening balance	1,000		(a)	10,000	10	
February 2	Issued	(200)	200 units @ CU 10	(b)	(2,000)	10	2,000
February 2	Closing balance	800		(c)	8,000	10	
February 25	Purchased	400	400 units @ 15	(d)	6,000	15	
February 25	Closing balance	1,200	(c)+ (d) = (800 @ CU 10 + 400 @ CU 15)	(e)	14,000		
March 2	Purchased	200	200 units @ CU 20	(f)	4,000	20	
March 2	Closing balance	1,400	(e) + (f) = (800 @ CU 10 + 400 @ CU 15 + 200 @ CU 20)	(g)	18,000		
March 25	Issued	(900)	(800 units @ CU 10) + (100 units @ CU 15)	(h)	(9,500)		9,500
March 31	Closing Inventory	500	(g)-(h)=(300 units @ CU 15)+(200 units @ CU 20)	(i)	8,500		11,500

The expense for the period is CU 11,500. The closing inventory is CU 8,500.

Disclosures

- Accounting policies
- Amount by classification and in total
- Amount of inventories carried at fair value
- Amount recognized as an expense
- Amount and circumstances for write downs or reversals
- Amount pledged as security

The financial statements must disclose:

a) The accounting policies adopted in measuring inventories, including the cost formula used;

b) The total carrying amount of inventories and the carrying amount in classifications appropriate to the entity;

Information about the carrying amounts held in different classifications of inventories and the extent of the changes in these assets is useful to financial statement users.Common classifications of inventories are merchandise, production supplies, materials, work-in-progress, and finished goods.

c) The carrying amount of inventories carried at fair value less costs of disposal;

Where inventories are measured at fair value, the entity discloses information about the measurement techniques and inputs used to develop those fair value measurements.

d) The amount of inventories recognized as an expense during the period;

The amount of inventories recognized as an expense during the period normally consists of those costs previously included in the measurement of inventory that has now been sold, exchanged, or distributed. It may also include other costs such as, distribution costs. In a manufacturing environment other costs may include unallocated production overheads and abnormal amounts of production costs of inventories.

Questions and Discussions

That concludes our module on inventories. Participants should refer to the review questions to test themselves on their knowledge

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

Which of the following best defines inventories? Why?

a) Assets held in the form of materials or supplies to be consumed in the production process, consumed or distributed in the rendering of services, held for sale, or in process of production.

b) Assets held for sale, in the process of production or in the form of materials or supplies to be processed in the production process.

c) Tangible assets held for sale in the ordinary course of business, in the process of production, or in the form of materials or supplies to be consumed in the production process or in the rendering of services.

Question 2

Which of the following best describes how inventories could be measured? Why?

a) The lower of cost and net realizable value

b) The lower of cost and current replacement cost

c) Fair value as at date of acquisition

d) All of the above

e) None of the above

Question 3

Which of the following best describes the cost of inventory? Why?

a) All costs of purchase and costs of conversion.

b) Direct costs, indirect costs and other costs (allocated production overheads).

c) All costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition

Question 4

An entity holds land for resale. Which of the following would be included in the cost of land held for sale? Why?

a) The allocation of costs, both fixed and variable, incurred in the development of undeveloped land

b) Borrowing costs

c) Administrative overheads and selling costs

Question 5

Which statement best describes cost formulas used to assign the cost of inventories? Why?

a) Using the last in, first out (LIFO) cost formula.

b) Using specific identification of individual costs for inventories that are not ordinarily interchangeable and, for inventories that are ordinarily interchangeable, the first in first out (FIFO) method or the weighted average cost formula.

c) Specific identification of costs for each individual item in inventories.

Answers to Review Questions

Question 1

The answer is (a).

Inventories meet the definition of an asset. They represent resources controlled by the entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity.

Inventories are assets:

a) In the form of materials or supplies to be consumed in the production process;

b) In the form of materials or supplies to be consumed or distributed in the rendering of services;

c) Held for sale or distribution in the ordinary course of operations; or

d) In the process of production for sale or distribution.

Inventories encompass goods purchased and held for resale including, for example, merchandise purchased by an entity and held for resale, or land and other property held for sale. Inventories also encompass finished goods produced, or work-in-progress being produced, by the entity. Inventories also include (a) materials and supplies awaiting use in the production process, and (b) goods purchased or produced by an entity, which are for distribution to other parties for no charge or for a nominal charge, for example, educational books produced by a health authority for donation to schools. In many public sector entities, inventories will relate to the provision of services rather than goods purchased and held for resale or goods manufactured for sale. In the case of a service provider, inventories include the costs of the service for which the entity has not yet recognized the related revenue. (IPSAS 12, paragraph 11)

Question 2

The answer is (d).

Depending on the nature of the inventory, (a), (b) and (c) may apply. Inventories shall be measured at the lower of cost and net realizable value, except where:

a) Inventories are acquired through a non-exchange transaction when cost shall be measured at their fair value as at the date of acquisition;

b) They are held for distribution at no charge or for a nominal charge; or consumption in the production process of goods to be distributed at no charge or for a nominal charge when cost will be lower of cost or current replacement cost.

Current replacement cost is the cost the entity would incur to acquire the asset on the reporting date. The government would have to test the current replacement cost against its cost of production to determine the appropriate value.

Question 3

The answer is (c).

The cost of inventories shall comprise all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition.

The costs of purchased inventories comprise (a) the purchase price, (b) import duties and other taxes (other than those subsequently recoverable by the entity from the taxing authorities), and transport, handling, and other costs directly attributable to the acquisition of fi shed goods, materials, and supplies. Trade discounts, rebates, and other similar items are deducted in determining the costs of purchase. (IPSAS 12, paragraph 19)

IPSAS 12 provides guidance on the cost of conversion (manufactured inventories). Costs include costs directly related to the units of production, such as direct labor and allocation of fixed and variable production overheads. (IPSAS 12, paragraph 20 – 23) The guidance is complex and beyond the scope of this training. Participants who are involved in manufacturing should refer to IPSAS 12 for more guidance.

Costs normally excluded from the cost of inventories and recognized as expenses in the period in which they are incurred are storage costs, administrative overheads, selling costs and borrowing costs. (IPSAS 12, paragraph 24 – 25)

Question 4

The answer is (a).

Depending on the accounting policy of the entity, costs may include (b).

The cost of land held for sale includes the allocation of costs, both fixed and variable, incurred in the development of undeveloped land held for sale into residential or commercial landholdings. Such costs could include costs relating to landscaping, drainage, pipe laying for utility connection, etc.

While borrowing costs are normally excluded from the costs attributable to inventories, if the allowed alternative treatment under IPSAS 5, *Borrowing Costs* is adopted, it may be permissible to include them in the cost of land held for sale when development requires a substantial period of time to bring it to a condition for sale.

Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. Costs normally excluded from the cost of inventories and recognized as expenses in the period in which they are incurred are administrative overheads and selling costs.

Question 5

The answer is (b).

The cost of inventories of items that are not ordinarily interchangeable, and goods or services produced and segregated for specific projects, shall be assigned by using specific identification of their individual costs.

When there are large numbers of items of inventory that are ordinarily interchangeable costs shall be assigned by using the first-in, first-out (FIFO) or weighted average cost formulas.

The cost formula shall be consistently applied to all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified.

Agriculture

Agriculture IPSAS 27

IPSAS 27 is based on IAS 41. It prescribes the accounting treatment and disclosures for agricultural activity.

Agricultural activity is the management by an entity of the biological transformation and harvest of biological assets for:

- Sale;
- Distribution at no charge or for a nominal charge; or
- Conversion into agricultural produce or into additional biological assets for sale or for distribution at no charge or for a nominal charge.

Scope

- Biological assets – living plant or animal (except bearer plants)
- Agricultural produce – point of harvest
- Excludes
  - Land related to agricultural activity
  - Intangible assets related to agricultural activity
  - Biological assets held for provision or supply of services
  - Right-of-use assets arising from a lease of land related to agricultural activity

Biological assets are used in many activities undertaken by public sector entities. If biological assets are used for research, education, transportation, entertainment, recreation, customs control or in any other activities that are not agricultural activities they are not accounted for in accordance with IPSAS 27. When they meet the definition of an asset, other IPSASs should be considered in determining the appropriate accounting (e.g., IPSAS 12, Inventories and IPSAS 45).

IPSAS 27 does not deal with the processing of agricultural produce after harvest; for example, the processing of grapes into wine by a vintner who has grown the grapes. While such processing may be a logical and natural extension of agricultural activity, and the events taking place may bear some similarity to biological transformation, such processing is not included within the definition of agricultural activity in IPSAS 27.

In the public sector biological assets are often held for the provision or supply of services. Examples of such biological assets include horses and dogs used for policing purposes and plants and trees in parks and gardens operated for recreational purposes.

These biological assets are not held for use in an agricultural activity because they are not routinely managed for the purpose of measuring and monitoring the change in quality or quantity brought about by biological transformation or harvest, as described in paragraph 10 of IPSAS 27.

Bearer Plants

- A bearer plant is a living plant that:
  - Is used in the production or supply of agricultural produce:
  - Is expected to bear produce for more than one period: and
  - Has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.
- Bearer plants are accounted for in accordance with IPSAS 45

The definition of a bearer plant does not include animals, even if the animal is expected to bear produce for more than one period (for example, a sheep producing wool).

Bearer plants are accounted for in accordance with *IPSAS 45, Property, Plant, and Equipment.* This reflects the fact that the benefits provided by bearer plants are consistent with other property, plant, and equipment. It is, therefore, appropriate to account for them accordingly, for example by accumulating costs, rather than by measuring them at their fair value at the reporting date. In part this also reflects the difficulty of identifying a fair value for the bearer plants independently of other assets (such as the land on which they are growing), something that does not arise with animals.

Examples

Biological assets	Agricultural produce	Products – result of processing after harvest
Sheep	Wool	Yarn/carpet
Trees in timber plantation	Felled trees	Logs, lumber
Cotton plants	Harvested cotton	Thread, clothing
Dairy cattle	Milk	Cheese
Pigs	Carcass	Sausages, cured ham
Tea bushes	Picked leaves	Tea
Grape vines	Picked grapes	Wine
Fruit trees	Picked fruit	Processed fruit

Agricultural Activity

- Management of biological transformation & harvest of biological assets
- Diverse activities
  - Capability to change
  - Management of change
  - Measurement of change
- Biological transformation results in asset changes or production of agricultural produce

Agricultural activity covers a diverse range of activities; for example, raising livestock, forestry, annual or perennial cropping, cultivating orchards and plantations, floriculture, and aquaculture (including fish farming). Certain common features exist within this diversity:

a) Capability to change. Living animals and plants are capable of biological transformation;

b) Management of change. Management facilitates biological transformation by enhancing, or at least stabilizing, conditions necessary for the process to take place (for example, nutrient levels, moisture, temperature, fertility, and light). Such management distinguishes agricultural activity from other activities. For example, harvesting from unmanaged sources (such as ocean fishing and deforestation) is not agricultural activity; and

c) Measurement of change. The change in quality (for example, genetic merit, density, ripeness, fat cover, protein content, and fiber strength) or quantity (for example, progeny, weight, cubic meters, fiber length or diameter, and number of buds) brought about by biological transformation or harvest is measured and monitored as a routine management function.

Biological transformation results in the following types of outcomes:

a) Asset changes through (i) growth (an increase in quantity or improvement in quality of an animal or plant), (ii) degeneration (a decrease in the quantity or deterioration in quality of an animal or plant), or (iii) procreation (creation of additional living animals or plants); or

b) Production of agricultural produce such as latex, tea leaf, wool, and milk.

In certain jurisdictions biological assets that are part of agricultural activity may be sold or distributed to other public sector entities, non-governmental organizations or other entities at no charge or for a nominal charge. Biological assets held for distribution at no charge or for a nominal charge are within the definition of agricultural activity because such transactions are common in the public sector.

Recognition

- Recognize biological asset or agricultural produce when:
  - Entity controls asset as result of past event
  - Probable future economic benefits/service potential will flow to entity
  - Fair value or cost can be measured reliably

The same general recognition principles that apply to other assets also apply to biological assets.

In agricultural activity, control may be evidenced by, for example, legal ownership of cattle and the branding or otherwise marking of the cattle on acquisition, birth, or weaning. The future benefits or service potential are normally assessed by measuring the significant physical attributes.

Measurement at Initial Recognition

- Measured at fair value less costs to sell
- If non-exchange transaction, same
- Agricultural produce harvested from biological assets measured at fair value less costs to sell at point of harvest
- Grouping according to attributes allowed

Guidance on determining fair value is included in IPSAS 46, *Measurement*. A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

a) In the principal market for the asset or liability; or

b) In the absence of a principal market, in the most advantageous market for the asset or liability

The fair value measurement of a biological asset or agricultural produce may be facilitated by grouping biological assets or agricultural produce according to significant attributes; for example, by age or quality.

Biological assets are often physically attached to land (for example, trees in a plantation forest). There may be no separate market for biological assets that are attached to the land but an active market may exist for the combined assets, that is, for the biological assets, raw land, and land improvements, as a package. An entity may use information regarding the combined assets to measure the fair value of the biological assets. For example, the fair value of raw land and land improvements may be deducted from the fair value of the combined assets to arrive at the fair value of biological assets.

Subsequent Measurement

- Measured at Fair Value less Costs to Sell at each reporting date
- Agricultural Produce - Fair Value less Costs to Sell at point of harvest
- Gains or losses – Recognized in Surplus or Deficit for the period in which they arise

Disclosure

- Gain/loss on initial recognition
- Consumable/bearer biological assets
- Biological assets held for sale and those held for distribution at no/nominal charge
- Nature of activities & estimates of physical quantities
- Fair value measurement
- Reconciliation

Some disclosure requirements require additional analysis:

a) Distinguish between consumable and bearer biological assets. (Bearer biological assets include animals that are used repeatedly or continuously, for example for breeding or milk production as well as bearer plants.) This distinction is necessary because the Government Finance Statistics (GFS) Manual 2014 (GFSM 2014) classifies consumable assets as inventory, while IPSAS 27 classified them as biological assets. The distinction allows for a better reconciliation between the two reporting frameworks.

b) Distinguish between biological assets held for sale and those held for distribution at no charge or for a nominal charge. This distinction allows users to determine the unrealized gains and losses on biological assets held for distribution at no charge or for a nominal charge.

c) Show biological assets acquired through non-exchange transactions and biological assets held for distribution at no charge or for a nominal charge in its reconciliation of changes in the carrying amount of biological assets between the beginning and the end of the current period.

d) Disclose separately the changes in fair value less costs to sell as a result of non-exchange transactions for biological assets held for sale and for biological assets held for distribution at no charge or for a nominal charge. It is important that information is provided on the amount of gains and losses attributable to biological assets intended for distribution at no charge or for a nominal charge to assist users of financial statements in assessing the cost of government programs.

e) Describe the nature and extent of restrictions imposed on the entity's use or capacity to sell biological assets, such as the total and restricted amounts of such assets.

f) Disclose the fair value of each class of agricultural asset, and provide information to allow users of the financial statements to assess the measurement techniques and inputs used to measure fair value, and the impact of significant unobservable inputs (Level 3 in the fair value hierarchy in IPSAS 46)

g) A reconciliation of changes in the carrying amount of biological assets between the beginning and the end of the current period. The reconciliation should include:

   (i) The gain or loss arising from changes in fair value less costs to sell, disclosed separately for bearer biological assets and consumable biological assets;

   (ii) Increases due to purchases;

   (iii) Increases due to assets acquired through a non-exchange transaction;

   (iv) Decreases attributable to sales and biological assets classified as held for sale (or included in a disposal group that is classified as held for sale);

   (v) Decreases due to distributions at no charge or for a nominal charge;

   (vi) Decreases due to harvest;

   (vii) Increases resulting from public sector combinations;

   (viii) Net exchange differences arising on the translation of financial statements into a different presentation currency, and on the translation of a foreign operation into the presentation currency of the reporting entity; and

   (ix) Other changes.

Questions and Discussions

That concludes our module on agriculture. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

The following table includes a number of different types of biological asset.

Biological assets	Standard to be used	Presentation of asset
Wheat plants		
Grapes on a vine		
Apple trees		
Trees grown for lumber		
Beef cattle		
Dairy cattle		

a) **Which IPSAS should be used in accounting for each biological asset?**

b) **How should each biological asset be presented?**

Question 2

A public sector entity operates a maize farm. The entity's reporting period is December 31, 20X1.

During 20X1, the entity undertakes the following transactions in respect of the maize farm:

a. Maize seeds with a carrying value of CU 1,500 were issued from inventory and planted.
b. Fertilizer and other chemicals with a carrying value of CU 3,000 were issued from inventory and used on the maize crop.
c. Staff costs of planting, maintaining, and harvesting the maize crop were CU 6,000.
d. Depreciation on the machinery used in planting, maintaining, and harvesting the maize crop amounted to CU 500
e. The maize crop was sold one month after harvest for CU 12,300. The cost of transporting the crop to the market was CU 250.
f. The fair value less costs to sell of the maize crop at the point of harvest was CU 12,000

(a) What are the journal entries required in the year?

(b) What is the surplus or deficit on:

(i) Production of the maize?

(ii) Sale of the maize?

Answer to Review Questions

Question 1

The following standards and presentation should be used:

Biological asset	Standard to be used	Presentation of asset
Wheat plants	IPSAS 27, Agriculture	Consumable biological asset
Grapes on a vine	IPSAS 27, Agriculture	Consumable biological asset
Apple trees	IPSAS 17, Property, Platn and Equipment (bearer plant)	Bearer biological asset
Trees grown for lumber	IPSAS 27, Agriculture	Consumable biological asset
Beef cattle	IPSAS 27, Agriculture	Consumable biological asset
Diary cattle	IPSAS 27, Agriculture	Bearer biological asset

Question 2

a) The journal entries required are:

	Debit (CU)	Credit (CU)
Expense (maize seeds planted)	1,500	
Inventory (maize seeds)		1,500
Expense (fertilizer and other chemicals)	3,000	
Inventory (fertilizer and other chemicals)		3,000
Expense (staff costs)	6,000	
Cash		6,000
Depreciation	500	
Farm machinery		500
Inventory (harvested maize)	12,000	
Revenue (gain/loss on fair value of maize crop)		12,000
Expense (cost of sale – maize crop)	12,000	
Inventory		12,000
Expense (cost of sale – transport costs)	250	
Cash		250
Cash	12.300	
Revenue (proceeds of sale)		12,300

(b) Surplus or deficit:

(i) Production of the maize?

Revenue	(fair value less costs to sell)		CU 12,000
Expenses:			
Maize seeds		CU 1,500	
Fertilizer and other chemicals		CU 3,000	
Staff costs		CU 6,000	
Depreciation		CU 500	
Total expenses			CU 11,000
Surplus			CU 1,000

(ii) Sale of the maize?

Revenue		CU 12,300
Expenses		
Cost of sale – maize crop	CU 12,000	
Cost of sale – transport costs	CU 250	
Total expenses		CU 12,250
Surplus		CU 50

Investment Property

IPSAS 16, *Investment Property*, has been modified by other IPSAS that have been issued recently and that have an effective date of January 1, 2025. The changes principly relate to the treatment of investment property held under a lease, and the measurement of fair value. Entities that have not yet started to implement IPSAS 16 are strongly advised to adopt the latest version of IPSAS 16. For those entities that have already begun to implement an earlier version of IPSAS 16, the principles are generally consistent, but there are differences arising from the different treatment of leases in IPSAS 43, *Leases*. For these entities, investment property held under a finance lease will follow the principles set out in this material. An additional section is included at the end of the material covering the treatment of investment property held under an operating lease. This material does not cover the details of fair value measurement, and directs readers to IPSAS 46, *Measurement* (see Module 10). For those entities implementing an earlier version of IPSAS 16, guidance on measuring fair value can be found in that version. Entities will also need to refer to earlier versions of other IPSAS, for example IPSAS 13, *Leases*, rather than IPSAS 43; and IPSAS 17, *Property, Plant, and Equipment,* rather than IPSAS 45, *Property, Plant and Equipment*, and should ignore references to IPSAS 44, *Non-current Assets Held for Sale and Discontinued Operations*.

Scope

- IPSAS 16 applies to Investment Property
- IPSAS 16 does not apply to:
  - Biological assets related to agricultural activity
  - Mineral rights and mineral reserves such as oil, natural gas, and similar non-regenerative resources

Definition of Investment Property

- Investment property is property (land or a building – or part of a building – or both) held (by the owner or by the lessee as a right-of-use asset) to earn rentals or for capital appreciation, or both, rather than for:

  (a) Use in the production or supply of good or services, or for administrative purposes or

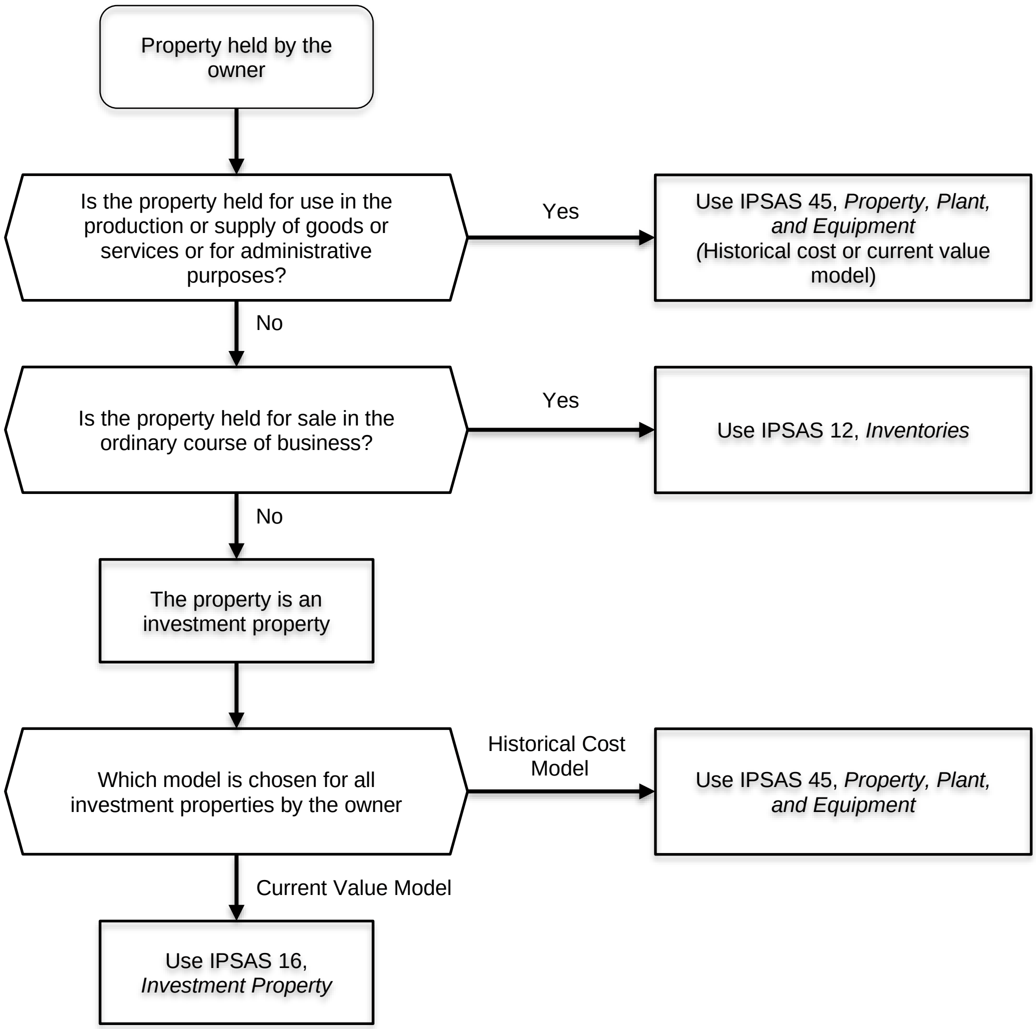
  (b) Sale in the ordinary course of operations.
- Investment property is distinguished from owner-occupied property
  - Owner-occupied property is outside the scope of IPSAS 16

IPSAS 16 distinguishes investment property from owner-occupied property, which is outside the scope of this standard. IPSAS 16 defines owner-occupied property:

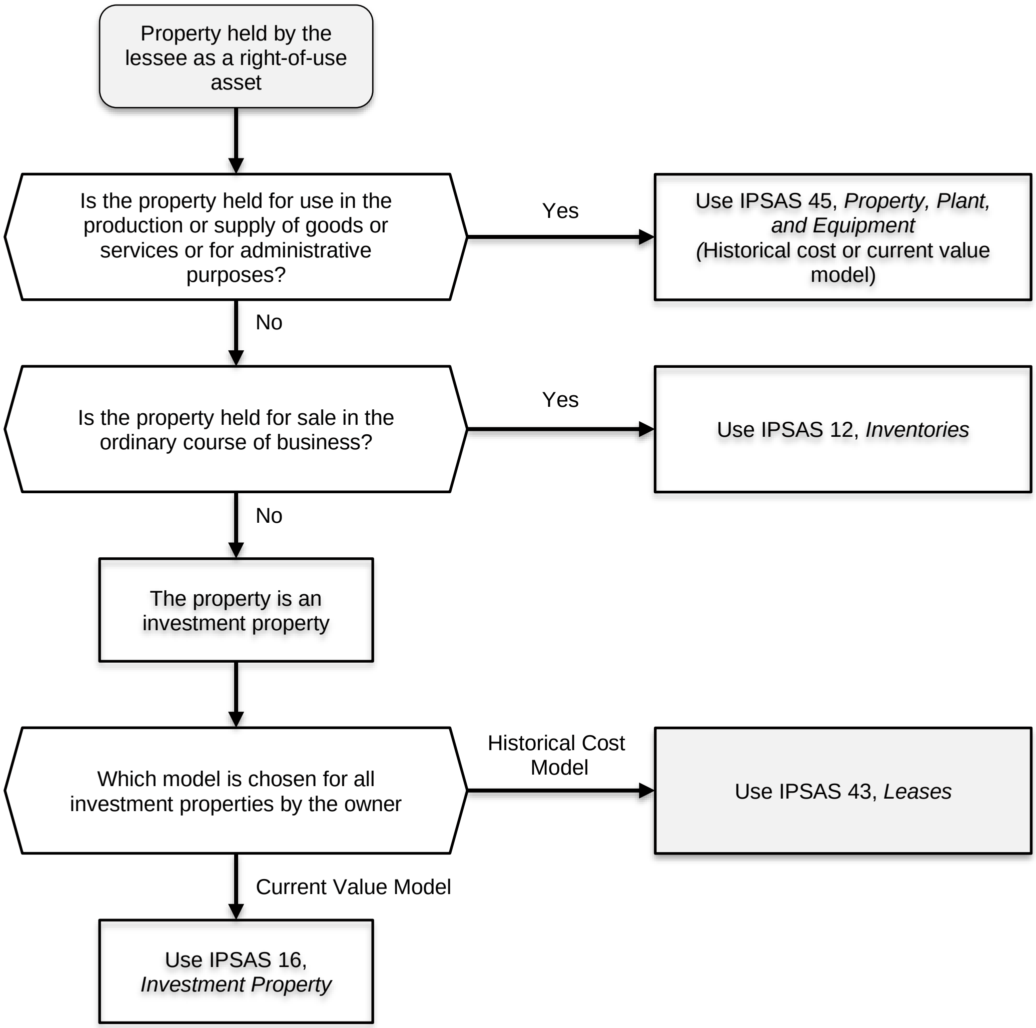
Owner-occupied property is property held (by the owner or by the lessee as a right-of-use asset) for use in the production or supply of goods or services, or for administrative purposes.

In some cases, an entity provides ancillary services to the occupants of a property it holds. An entity treats such a property as investment property if the services are insignificant to the arrangement as a whole. An example is when a government agency (a) owns an office building that is held exclusively for rental purposes and rented on a commercial basis, and (b) also provides security and maintenance services to the lessees who occupy the building.

Decision Tree – Owned Property



Decision Tree – Leased Property



The above decision trees illustrate the process for determining whether a property is an investment property, and how to account for the different assets.

The decision tree for owned property and the decision tree for leased property are similar; the shaded boxes in the second decision tree highlight the differences.

Examples of Investment Property

Investment Property	Net Investment Property
Land held for long-term capital appreciation	Property held for sale in the ordinary course of operations
Land held for a currently undetermined future use	Owner-occupied property, including property held for future use as owner-occupied property
A building leased out under an operating lease on a commercial basis	Property that is leased to another entity under a finance lease.
A vacant building held to be leased out under an operating lease on a commercial basis	Property held to provide a social service and which also generates cash inflows
Property that is being constructed or developed for future use as investment property	Property held for strategic purposes

IPSAS 16 provides examples of investment property, and items that are not investment property.

Examples of investment property are:

a) Land held for long-term capital appreciation rather than for short-term sale in the ordinary course of operations. For example, land held by a hospital for capital appreciation that may be sold at a beneficial time in the future.

b) Land held for a currently undetermined future use. (If an entity has not determined that it will use the land as owner-occupied property, including occupation to provide services such as those provided by national parks to current and future generations, or for short-term sale in the ordinary course of operations, the land is regarded as held for capital appreciation).

c) A building owned by the entity (or a right-of-use asset relating to a building held by the entity) and leased out under one or more operating leases on a commercial basis. For example, a university may own a building that it leases on a commercial basis to external parties.

d) A building that is vacant but is held to be leased out under one or more operating leases on a commercial basis to external parties.

e) Property that is being constructed or developed for future use as investment property.

Examples of items that are not investment property are:

a) Property held for sale in the ordinary course of operations or in the process of construction or development for such sale (see IPSAS 12, *Inventories*). For example, a municipal government may routinely supplement rate income by buying and selling property, in which case property held exclusively with a view to subsequent disposal in the near future or for development for resale is classified as inventory. A housing department may routinely sell part of its housing stock in the ordinary course of its operations as a result of changing demographics, in which case any housing stock held for sale is classified as inventory.

b) Owner-occupied property (see IPSAS 45 and IPSAS 43), including (among other things) property held for future use as owner-occupied property, property held for future development and subsequent use as owner-occupied property, property occupied by employees such as housing for military personnel (whether or not the employees pay rent at market rates) and owner-occupied property awaiting disposal.

c) Property that is leased to another entity under a finance lease.

d) Property held to provide a social service and which also generates cash inflows. For example, a housing department may hold a large housing stock used to provide housing to low income families at below market rental. In this situation, the property is held to provide housing services rather than for rentals or capital appreciation and rental revenue generated is incidental to the purposes for which the property is held. Such property is not considered an "investment property" and would be accounted for in accordance with IPSAS 45.

e) Property held for strategic purposes which would be accounted for in accordance with IPSAS 45.

Worked Example

- A Government agency owns a hotel and conference center which it manages. Should the agency classify the hotel and conference center as an investment property?

Answer:

A Government agency owns a hotel and conference center which it manages. The services provided to guests are significant to the arrangement as a whole. Therefore, an owner-managed hotel and conference center is owner-occupied property, rather than investment property.

Recognition Principle

- Owned investment property shall be recognized as an asset when, and only when:
  (a) It is probable that the future economic benefits or service potential that are associated with the investment property will flow to the entity; and
  (b) The cost or fair value of the investment property can be measured reliably.
- An investment property held by a lessee as a right-of-use asset shall be recognized in accordance with IPSAS 43.

The general asset recognition principles apply equally for investment property as any other asset.

In determining whether an item satisfies the first criterion for recognition, an entity needs to assess the degree of certainty attaching to the flow of future economic benefits or service potential on the basis of the available evidence at the time of initial recognition. There needs to be assurance that the entity will receive the rewards attaching to the asset, and will undertake the associated risks. This assurance is usually only available when the risks and rewards have passed to the entity. Before this occurs, the transaction to acquire the asset can usually be cancelled without significant penalty and, therefore, the asset is not recognized.

The second criterion for recognition is usually readily satisfied because the exchange transaction evidencing the purchase of the asset identifies its cost. Where an investment property is acquired at no cost or for a nominal cost, the investment property's fair value as at the date of acquisition needs to be capable of being measured reliably.

Measurement at Recognition

- Owned investment property shall be measured initially at its cost (transaction costs shall be included in this initial measurement).
- Where an owned investment property is acquired through a non-exchange transaction, its cost shall be measured at its fair value as at the date of acquisition.
- An investment property held by a lessee as a right-of-use asset shall be measured initially in accordance with IPSAS 43.

The cost of a purchased investment property comprises its purchase price and any directly attributable expenditure. Directly attributable expenditure includes, for example, professional fees for legal services, property transfer taxes, and other transaction costs.

The cost of investment property is not increased by:

a) Start-up costs (unless they are necessary to bring the property to the condition necessary for it to be capable of operating in the manner intended by management);

b) Operating losses incurred before the investment property achieves the planned level of occupancy; or

c) Abnormal amounts of wasted material, labor or other resources incurred in constructing or developing the property.

If payment for investment property is deferred, its cost is the cash price equivalent. The difference between this amount and the total payments is recognized as interest expense over the period of credit.

An investment property may be acquired through a non-exchange transaction. For example, a national government may transfer at no charge a surplus office building to a local government entity, which then lets it out at market rent. In these circumstances, the cost of the property is its fair value as at the date it is acquired.

Subsequent Measurement

- An entity may choose its accounting policy in respect of investment property:
  - Historical cost model
    - Investment property is measured in accordance with the cost model in IPSAS 45 (or IPSAS 43 if the asset is held by the lessee as a right-of-use asset)
    - The fair value of investment property is disclosed
  - Current value model

IPSAS 16 permits two approaches to subsequent measurement. An entity chooses as its accounting policy either the current value model or the historical cost model; this choice can be made separately for (a) investment property backing liabilities that pay a return linked directly to the fair value of, or returns from, specified assets including that investment property; and (b) all other investment property. IPSAS 3, *Accounting Policies, Changes in Accounting Estimates and Errors*, allows an entity to subsequently change its accounting policy where this will produce reliable and more relevant information. However, IPSAS 16 notes that it is highly unlikely that a change from the current value model to the historical cost model will result in a more relevant presentation.

After initial recognition, an entity that chooses the historical cost model shall measure all of its investment property in accordance with IPSAS 45's requirements for that model, i.e., at cost less any accumulated depreciation and any accumulated impairment losses, or apply IPSAS 43 if the asset is held by the lessee as a right-of-use asset.

An entity that chooses the historical cost model is required to disclose the fair value of its investment property.

Fair Value Model

- Investment property is measured at fair value
  - Use of historical cost model where, exceptionally, it is clear on initial recognition that the fair value of the investment property is not reliably measurable on a continuing basis
  - Once measured at fair value, continues to be measured at fair value
  - Investment property under construction is measured at historical cost until either its fair value becomes reliably measurable, or construction is completed (whichever is earlier)
- Fair value is measured in accordance with IPSAS 46. *Measurement*
- A gain or loss arising from a change in the fair value of investment property is recognized in surplus or deficit for the period in which it arises
- No depreciation or impairment is charged

After initial recognition, an entity that chooses the current value model measures all of its investment property at fair value, except in one set of circumstances, described below.

There is a rebuttable presumption that an entity can reliably measure the fair value of an investment property on a continuing basis. However, in exceptional cases, there is clear evidence when an entity first acquires an investment property (or when an existing property first becomes investment property after a change in use) that the fair value of the investment property is not reliably measurable on a continuing basis. This arises when, and only when, the market for comparable property is inactive (e.g., there are few recent transactions, price quotations are not current or observed transaction prices indicate that the seller was forced to sell) and alternative reliable measurements of fair value (for example, based on discounted cash flow projections) are not available. If an entity determines that the fair value of an investment property is not reliably measurable on a continuing basis, the entity measures that investment property using the historical cost model in IPSAS 45 for owned investment property or in accordance with IPSAS 43 for investment property held by a lessee as a right-of-use asset.. The residual value of the investment property is assumed to be zero. The entity continues to apply IPSAS 45 or IPSAS 43 until disposal of the investment property. The entity measures all its other investment property at fair value.

If an entity has previously measured an investment property at fair value, it continues to measure the property at fair value until the property is disposed of (or becomes owner-occupied property or is developed for subsequent sale in the ordinary course of operations) even if comparable market transactions become less frequent or market prices become less readily available.

If an entity determines that the fair value of an investment property under construction is not reliably measurable but expects the fair value of the property to be reliably measurable when construction is complete, it measures that investment property under construction at historical cost until either its fair value becomes reliably measurable or construction is completed (whichever is earlier).

The fair value of investment property is measured in accordance with IPSAS 46, *Measurement*. When measuring the fair value of investment property, an entity shall ensure that the fair value reflects, among other things, rental revenue from current leases and other assumptions that market participants would use when pricing the investment property under current market conditions.

IPSAS 43 specifies the basis for initial recognition of the cost of an investment property held by a lessee as a right-of-use asset. IPSAS 43 requires investment property held by a lessee as a right-of-use asset to be remeasured, if necessary, to fair value if the entity chooses the current value model.

When lease payments are at market rates, the fair value of an investment property held by a lessee as a right-of-use asset at acquisition, net of all expected lease payments (including those relating to recognized lease liabilities), should be zero.Thus, remeasuring a right-of-use asset from cost in accordance with IPSAS 43 to fair value should not give rise to any initial gain or loss, unless fair value is measured at different times. This could occur when an election to apply the fair value basis is made after initial recognition.

A gain or loss arising from a change in the fair value of investment property is recognized in surplus or deficit for the period in which it arises. This is different to the revaluation model in IPSAS 17, where changes in valuation may be reflected in a revaluation reserve.

No depreciation or impairment is charged on investment property measured using the fair value model. Any depreciation or impairment experienced by the property will automatically be reflected in its fair value, and therefore in the gain or loss recognized in surplus or deficit.

Historical Cost Model

- After initial recognition, an entity that chooses the historical cost model shall measure investment property:
  - In accordance with IPSAS 43 if it is held by a lessee as a right-of-use asset;
  - In accordance with the requirements in IPSAS 45 for the historical cost model if it is held by an owner as an owned investment property; and
  - In accordance with IPSAS 44 if it meets the criteria to be classified as held for sale (or is included in a disposal group that is classified as held for sale)

Transfers

- Transfer from investment property carried at fair value to owner-occupied property or inventories
  - Cost for subsequent accounting is its fair value at change of use
- Transfer from owner-occupied property to investment property carried at fair value
  - Difference between carrying amount (in accordance with IPSAS 45 or IPSAS 43 for a right-of-use asset) and fair value treated as revaluation in accordance with IPSAS 45
- Transfer from inventories to investment property that will be carried at fair value
  - Difference between carrying amount and fair value recognized in surplus or deficit

Transfers to or from investment property are made when, and only when, there is a change in use. A change in use occurs when the property meets, or ceases to meet, the definition of investment property and there is evidence of the change in use. Evidence of a change in use includes:

a) Commencement of owner-occupation, or development with a view to owner-occupation (for a transfer from investment property to owner-occupied property);

b) Commencement of development with a view to sale (for a transfer from investment property to inventories);

c) End of owner-occupation (for a transfer from owner-occupied property to investment property); or

d) Commencement of an operating lease (on a commercial basis) to another party (for a transfer from inventories to investment property).

Where there is a transfer from investment property carried at fair value to either owner-occupied property or inventories, the property's cost for subsequent accounting in accordance with IPSAS 45, IPSAS 43 or IPSAS 12 (in other words, its deemed cost) is its fair value at the date of change in use.

Where an owner-occupied property becomes an investment property that will be carried at fair value, an entity continues to apply IPSAS 45 (for owned property) and IPSAS 43 (for property held by a lessee as a right-of-use asset) up to the date of change in use. Any difference at that date between the carrying amount of the property in accordance with IPSAS 45 or IPSAS 43, and its fair value is treated in the same way as a revaluation in accordance with IPSAS 45. Where the fair value is greater than the carrying amount, a revaluation increase will be recognized in revaluation surplus (except to the extent it reverses a previous impairment loss).

Where the carrying amount is greater than the fair value, a revaluation decrease will be recognized in surplus or deficit, except to the extent that an amount is included in revaluation surplus for that property, when the decrease is charged against that revaluation surplus.

Where there is a transfer from inventories to investment property that will be carried at fair value, any difference between the fair value of the property at that date and its previous carrying amount shall be recognized in surplus or deficit. This is consistent with the treatment of sales of inventories.

When an entity uses the historical cost model, transfers between investment property, owner-occupied property, and inventories do not change the carrying amount of the property transferred, and they do not change the cost of that property for measurement or disclosure purposes.

Disposals

- An investment property shall be derecognized on disposal or when the investment property is permanently withdrawn from use and no future economic benefits or service potential are expected from its disposal
- Gains or losses arising from the retirement or disposal of investment property shall be determined as the difference between the net disposal proceeds and the carrying amount of the asset, and shall be recognized in surplus or deficit
- Compensation from third parties for investment property that was impaired, lost, or given up shall be recognized in surplus or deficit when the compensation becomes receivable

An investment property is derecognized (eliminated from the statement of financial position) on disposal or when the investment property is permanently withdrawn from use and no future economic benefits or service potential are expected from its disposal. The disposal of an investment property may be achieved by sale or by entering into a finance lease.

Gains or losses arising from the retirement or disposal of investment property are determined as the difference between the net disposal proceeds and the carrying amount of the asset, and are recognized in surplus or deficit (unless IPSAS 43 requires otherwise on a sale and leaseback) in the period of the retirement or disposal.

The amount of consideration to be included in the surplus or deficit arising from the derecognition of an investment property is determined in accordance with the requirements for determining the transaction consideration in IPSAS 47 (see Module 4). Subsequent changes to the estimated amount of consideration included in surplus or deficit shall be accounted for in accordance with the requirements for changes in the transaction consideration in IPSAS 47.

Compensation from third parties for investment property that was impaired, lost, or given up is recognized in surplus or deficit when the compensation becomes receivable.

Investment Property held under an Operating Lease (Previous version of IPSAS 16, linked to IPSAS 13 only)

- A property interest that is held by a lessee under an operating lease may be classified and accounted for as investment property if, and only if:
  - The property would otherwise meet the definition of an investment property
  - The lessee uses the fair value model for **all** investment property
- Classification available on a property-by-property basis
- Disclosure required
- Initial cost as prescribed for a finance lease under IPSAS 13, *Leases*
  - Liability also recognized as if a finance lease under IPSAS 13

This section relates to the previous treatment of leases under IPSAS 13. This treatment does not apply under the latest version of IPSAS 16 but is provided solely as guidance for any entities that have started adopting the previous version of IPSAS 16. Unless this situation applies to your entity, please ignore this section.

Where an entity holds property as a lessee under an operating lease, the entity does not recognize an asset for the property. An exception to this principle is where the property meets the definition of an investment property. In such circumstances, the entity may classify the property as an investment property, and recognize the property as an asset.

An entity can choose whether to classify a property held under an operating lease as an investment property on a property-by-property basis. However, once the entity recognizes a property held under an operating lease as an investment property, it must adopt the fair value model for measuring all its investment properties, whether held under an operating lease or not. The option to use the cost model is no longer available to the entity.

When an entity recognizes a property held under an operating lease as an investment property, the initial cost of the investment property is as prescribed for a finance lease under IPSAS 13, *Leases* i.e., the asset is recognized at the lower of the fair value of the property and the present value of the minimum lease payments.. The entity also recognizes a matching liability, as required for a finance lease in accordance with IPSAS 13.

After initial recognition, the investment property is measured at fair value in accordance with IPSAS 16. The liability is measured in accordance with IPSAS 13.

Under IPSAS 13, an entity would have recognized the underlying asset under a finance lease, either as an investment property or as property, plant and equipment.

Questions and Discussions

That concludes our module on investment property. Participants should refer to the review questions to test themselves on their knowledge.

Visit the IPSASB webpage

http://www.ipsasb.org

Review Questions

Question 1

A government owns a housing estate which it uses to provide housing to low income families at below market rental.

Should the housing estate be classified as investment property? Why/why not?

Question 2

On January 1, 20X1, a government entity purchases an office building for CU300,000. The building has an expected life of 30 years. The entity leases the building on commercial terms to tenants, and does not provide any additional services. The building is being held to earn rentals and therefore meets the definition of an investment property.

At December 31, 20X1, the building has a fair value of CU315,000.

What amount would the entity include in its statement of financial position for the building under:

a) The current value model; and

b) The historical cost model?

Answers to Review Questions

Question 1

The housing estate should not be classified as investment property.

In this situation, the property is held to provide housing services rather than for rentals or capital appreciation and rental revenue generated (which is below market value) is incidental to the purposes for which the property is held. Such property is not considered an "investment property" and would be accounted for in accordance with IPSAS 45.

Question 2

a) Current value model

Under the current value model, an entity measures investment property at its fair value as at the reporting date. The entity will therefore include an amount of CU315,000 (the fair value of the building) in its statement of financial position.

b) Historical cost model

Under the historical cost model, an entity measures investment property at cost less any accumulated depreciation and any accumulated impairment losses, in accordance with the historical cost model in IPSAS 45.

The cost of the building is CU300,000 and the building has an expected life of 30 years. The entity would therefore recognize depreciation of CU10,000 in 20X1 (CU300,000 ÷ 30 years), and the carrying amount of the building would be CU290,000 (cost of CU300,000 – CU10,000 depreciation).