Greenhouse gas reporting methodology

Reporting methodology

The calculation and reporting methodology implemented in the NIVI digital platform is aligned with the relevant Greenhouse Gas Protocol (GHG) documents and has been verified by Det Norske Veritas (DNV) in a document dated February 14, 2024.

Organizational boundaries (GHG Protocol, Revised Edition, Section 3 and 4)

NIVI is a corporate reporting platform where emissions are reported annually by the top-tier or parent legal entity, such as a company, group of companies, corporation, etc. This top-tier legal entity is defined as the *Main Legal Entity* in the NIVI platform. To report emissions for another top-tier legal entity, a new NIVI license is required.

Emissions generated by *Legal Entities*, *Sites*, and *Off-site Equipment* that are fully or partially owned by the *Main Legal Entity* are consolidated and reported under the *Main Legal Entity*.

The *Main Legal Entity* must have at least one *Legal Entity*, and each *Legal Entity* must have at least one *Site* to report emissions. If the *Main Legal Entity* is the only legal entity and directly owns one or more sites, it must also be specified as the *Legal Entity* to add *Site* data.

The NIVI platform follows the equity share approach as specified in the GHG Protocol, Revised Edition, Section 3. It allows for specifying the equity share at the *Legal Entity*, *Site*, or *Off-site Equipment* levels. Emissions are calculated, consolidated, and reported under the *Main Legal Entity* based on the equity share owned by the *Main Legal Entity*, either directly or through subsidiaries.

Base year (GHG Protocol, Revised Edition, Section 5)

Companies must choose and report a *Base Year* for which verifiable emissions data are available and specify their reasons for selecting that particular year. The inventory *Base* Year can also serve as the basis for setting and tracking progress toward a GHG target, in which case it is referred to as the target base year.

For the first reporting year with NIVI platform, companies can manually add the *Base Year* data in the *Base Year* menu. Scope 1, Scope 2, and Scope 3 emissions can be added, along with revenue for the selected *Base Year*, to calculate the *Emissions Intensity* metric.

Upon completing the first year of reporting in the NIVI platform, the company must lock the *Current Reporting Year* by checking the box labelled "*Complete Reporting Year*." Completed years can still be selected in the platform, and dashboard information will remain available, but editing data for those years will not be possible unless the box is unchecked by someone with the authority to change historical data.

Companies also have the option to set the completed reporting year as the *Base Year* if it offers greater data granularity compared to the existing base year. In this case, both the "*Complete Reporting Year*" and "*Make It As The Base Year*" boxes should be checked. This will overwrite the current *Base Year* data and lock it from further editing unless the box is unchecked.

Scope 1 emissions (GHG Protocol, Revised Edition, Section 6)

Scope 1 covers all direct GHG emissions, including fugitive emissions and those from combustion in owned or controlled boilers, diesel backup generators, and vehicles. Direct CO_2 emissions from the combustion of biomass are reported separately by the user, who adds the relevant emissions data in metric tons of CO_2 equivalent.

Scope 1 *Site* emissions are reported by navigating into *My company* → *Scope 1* → *Site Emissions* and then selecting the *Site* of the respective reporting year.

Scope 1 *Off-site Equipment* emissions are reported by navigating into *My company* → *Scope 1* → *Off-Site Equipment Under Direct Control* and then selecting the *Legal Entity* of the respective reporting year that has direct control over the equipment's operation.

Scope 2 emissions (GHG Protocol Scope 2 Guidance, Section 6)

Scope 2 covers indirect GHG emissions from the generation of purchased electricity, heat, cooling water, or steam.

Scope 2 *Site* emissions are reported by navigating to *My company* → *Scope 2* → E*lectricity, District Heating, Cooling Water*, or S*team* and then selecting the *Site* under the relevant purchased energy source tab.

The *Data Source* follows the hierarchy defined in Table 6.3 of GHG Protocol Scope 2 Guidance where:

1) *Energy attribute certificates* or equivalent instruments (unbundled, bundled with electricity, conveyed in a contract for electricity, or delivered by a utility) have the highest precision but require renewable energy certificate (US), generator declaration (UK), guarantee of origin (EU) or similar proof of data. The emissions factors are provided by user.
2) *Contract*, such as power purchase agreements (PPAs) and contracts from specified sources, where electricity attribute certificates do not exist or are not required for a usage claim. This data has the second highest precision and require contractual agreements with the suppliers where the emissions are specified. The emissions factors are provided by user.
3) *Supplier/Utility emission rates*, such as standard product offer or a different product (e.g. a renewable energy product or tariff), and that are disclosed (preferably publicly) according to best available information. The data preciseness is average though still require emissions data disclosed by the specific energy provider, however, the data may not be targeted and is average for the market. The emissions factors are provided by user.
4) *Residual mix* (subnational or national) that uses energy production data and factors out voluntary purchases. Calculated by each EU country under RE-DISS project. The emissions factors are provided by user.

5) *Other grid-average emission factors* (subnational or national). Average emission factors representing:
    a) all electricity production occurring in a defined grid distribution region that approximates a geographically precise energy distribution and use area. E.g., The Danish Energy Agency (DK), DEFRA annual grid average emissions factor (UK), eGRID total output emissions rates (US), etc.
    b) all electricity production information from geographic boundaries that are not necessarily related to dispatch region, such as state or national borders. E.g., IEA national electricity emission factors.

Emission factors defined under items 1-4 above are used for the *Market Based* reporting method. Emission factors defined under item 5 above are used for the *Location Based* reporting method. The NIVI platform supports dual reporting, as detailed in the GHG Protocol Scope 2 Guidance, Section 7.

Scope 3 emissions (GHG Protocol Technical Guidance for Calculating Scope 3 Emissions)

Scope 3 encompasses indirect business emissions, such as those from business travel, upstream transportation, purchased goods, non-owned or non-controlled vehicles, outsourced activities, waste disposal, and the use of video conferencing and other digital services. It also includes emissions from electricity and heating used at home during work.

The 15 categories in Scope 3, see Figure 1, are designed to provide companies with a systematic framework to measure, manage, and reduce emissions across their corporate value chain. These categories are intended to be mutually exclusive to prevent double counting of emissions among them.

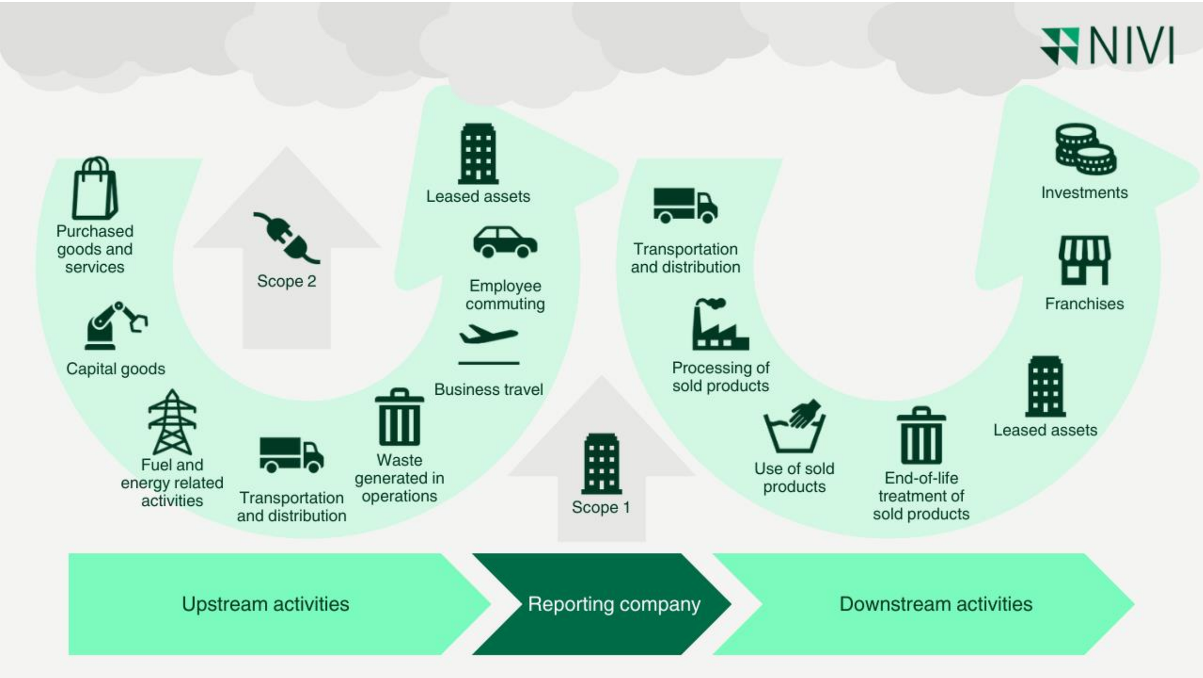

Figure 1. Scope 3 Upstream and Downstream Emissions (Source GHG Protocol)

Scope 3 Category 1 - Purchased Goods and Services

Category 1 includes emissions from all purchased goods and services that are not otherwise included in the other categories of upstream Scope 3 emissions (i.e., Categories 2 through 8). Specific categories of upstream emissions are separately reported in Categories 2 through 8 to enhance the transparency and consistency of Scope 3 reports.

Emissions from the transportation of purchased products from a tier-one (direct) supplier to the reporting company (using vehicles not owned or controlled by the reporting company) are accounted for in Category 4 (Upstream Transportation and Distribution).

Category 1 emissions can be calculated using the following methods: supplier-specific method, hybrid method, average-data method, and spend-based method. The NIVI platform supports two of these methods: the *Supplier-specific Method* and the *Spend-based Method*.

To report emissions from purchased goods using the *Supplier-specific Method*, the user should report emissions under the *Scope 3 -> Purchased Goods and Services-> Purchased Goods* menu, where the “Emission factor available” box should be checked. This allows the user to name the good, specify the goods quantity, and provide the emission factor for the specific purchased good.

To report emissions from purchased services using the *Supplier-specific Method*, the user should navigate to the *Scope 3 -> Purchased Goods and Services -> Purchased Services* menu and check the “Emission factor available” box. This allows the user to name the service type, specify the quantity of procured services, and provide the emission factor for the specific procured service. Multiple lines can be added under the same site.

To report emissions from purchased goods using the *Spend-based Method*, the user should report emissions under the *Scope 3 -> Purchased Goods and Services-> Purchased Goods* menu, where the closest matching good category can be browsed, and the total value of the purchased goods should be provided. Multiple lines can be added under the same site.

To report emissions from purchased services using the *Spend-based Method*, the user should report emissions under the *Scope 3 -> Purchased Goods and Services-> Purchased Services* menu, where the closest matching service category can be browsed, and the total value of the purchased services should be provided. Multiple lines can be added under the same site.

Scope 3 Category 2 - Capital Goods

Capital goods are final products that have an extended life and are used by the company to manufacture a product; provide a service; or sell, store, and deliver merchandise. In financial accounting, capital goods are treated as fixed assets or as plant, property, and equipment (PP&E). Examples of capital goods include equipment, machinery, buildings, facilities, and vehicles. Companies should follow their own financial accounting procedures to determine whether to account for a purchased product as a capital good in this category or as a purchased good or service in Category 1. Companies should not double count emissions between Category 1 and Category 2.

Category 2 emissions can be calculated using the following methods: supplier-specific method, hybrid method, average-data method, and spend-based method. The NIVI platform supports two of these methods: the *Supplier-specific Method* and the *Spend-based Method*.

To report emissions from capital goods using the *Supplier-specific Method*, the user should report emissions under the *Scope 3 -> Purchased Goods and Services-> Capital Goods* menu, where the "Emission factor available" box should be checked. This allows the user to name the good, specify the goods quantity, and provide the emission factor for the specific capital good. Multiple lines can be added under the same site.

To report emissions from capital goods using the *Spend-based Method*, the user should report emissions under the *Scope 3 -> Purchased Goods and Services-> Capital Goods* menu, where the closest matching good category can be browsed, and the total value of the purchased goods should be provided. Multiple lines can be added under the same site.

Scope 3 Category 3 - Fuel- and Energy-Related Activities

Category 3 includes emissions related to the production of fuels and energy purchased and consumed by the reporting company during the reporting year that are not included in Scope 1 or Scope 2. This category covers emissions from four activities: upstream emissions of purchased fuels, upstream emissions of purchased electricity, energy transmission and distribution losses, and the generation of purchased electricity that is sold to end users.

The NIVI platform covers upstream emissions of purchased fuels and upstream emissions of purchased electricity. The remaining two activities are highly specific and can be enabled upon specific demand from the end user.

Category 3 emissions can be calculated using the supplier-specific method and the average-data method. The NIVI platform supports the *Average-data Method*.

To report emissions from purchased fuel or electricity using the *Average-data Method*, the user should navigate to the *Scope 3 -> Purchased Energy and Fuel* menu, where they should select the fuel type or electricity and specify the purchased quantities. Multiple lines can be added under the same site.

Scope 3 Category 4 - Upstream Transportation and Distribution

Category 4 includes emissions from:

- Transportation and distribution of products purchased in the reporting year, between a company's tier 1 suppliers and its own operations in vehicles not owned or operated by the reporting company
- Third-party transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics (e.g., of sold products), and third-party transportation and distribution between a company's own facilities.

Outbound logistics services purchased by the reporting company are categorized as upstream because they are a purchased service. Emissions from transportation and distribution of purchased products upstream of the reporting company's tier 1 suppliers (e.g., transportation between a company's tier 2 and tier 1 suppliers) are accounted for in Scope 3, Category 1 (Purchased Goods and Services).

Category 4 *Upstream Transportation* emissions can be calculated using the fuel-based method, distance-based method, or spend-based method. The NIVI platform supports the *Distance-based Method*. To report emissions from upstream transportation activities using the *Distance-based Method*, users should navigate to the *Scope 3 -> Transportation and Distribution -> Upstream Transportation* menu, where they should select the logistic method, transported volumes, and distance travelled. Multiple lines can be added under the same site.

Category 4 *Upstream Distribution* emissions can be calculated using the site-specific method or the average-data method. The NIVI platform supports the *Average-data Method*. To report emissions from upstream distribution activities using the *Average-data Method*, users should navigate to the *Scope 3 -> Transportation and Distribution -> Upstream Distribution* menu, where they should specify stored volumes, warehouse-specific emission data per metric ton per day of storage, and the average number of days products are stored in the specific warehouse. Multiple warehouses can be added under the same site.

Scope 3 Category 5 - Waste Generated in Operations

Category 5 includes emissions from the third-party disposal and treatment of waste generated by the reporting company's owned or controlled operations during the reporting year. This category covers emissions from the disposal of both solid waste and wastewater.

Only waste treatment in facilities owned or operated by third parties is included in Scope 3. The treatment of waste generated in operations is categorized as an upstream Scope 3 category because waste management services are purchased by the reporting company.

Category 5 emissions can be calculated using the supplier-specific method, waste-type-specific method, or average-data method. The NIVI platform supports the *Waste-type-specific Method* and the *Average-data Method*.

To report emissions from Category 5 activities using the *Waste-type-specific Method*, users should navigate to the *Scope 3 -> Waste Generated in Operations* menu and select *Waste-type-specific Method* from the calculation method dropdown menu. After selecting the method, the user can choose the source of waste, waste type, waste quantity in metric tonnes, and treatment type. Multiple lines can be added under the same site.

To report emissions from Category 5 activities using the *Average-data Method*, users should navigate to the *Scope 3 -> Waste Generated in Operations* menu and select *Average-data Method* from the calculation method dropdown menu. After selecting the method, the user can select the volume of waste disposed, the waste treatment method, and the share of waste treated using the selected method. The same waste can be treated by different methods according to the selected proportion. Multiple lines can be added under the same site.

Scope 3 Category 6 - Business Travel

Category 6 includes emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars.

Emissions from transportation in vehicles owned or controlled by the reporting company are accounted for in either Scope 1 (for fuel use) or, in the case of electric vehicles, Scope 2 (for electricity use). Emissions from leased vehicles operated by the reporting company that are not included in Scope 1 or Scope 2 are accounted for in Scope 3, Category 8 (Upstream Leased Assets). Emissions from the transportation of employees to and from work are accounted for in Scope 3, Category 7 (Employee Commuting).

Category 6 emissions can be calculated using the fuel-based method, distance-based method, or spend-based method. The NIVI platform supports the *Fuel-based Method* and the *Distance-based Method.*

To report emissions from Category 6 activities using the *Fuel-based Method*, users should navigate to the *Scope 3 -> Employee Travel and Commuting -> Business Travel* menu and select *Fuel-based Method* from the calculation method dropdown menu. After selecting the method, the user can add the total volume of fuels used for business travel and specify the fuel type. Multiple fuel types can be added. Multiple lines can also be added under the same site.

To report emissions from Category 6 activities using the *Distance-based Method*, users should navigate to the *Scope 3 -> Employee Travel and Commuting -> Business Travel* menu and select *Distance-based Method* from the calculation method dropdown menu. After selecting the method, the user can add the mode of transport and distance travelled. Multiple modes of transport can be added. Multiple lines can also be added under the same site.

Scope 3 Category 7 – Employee Commuting

This category includes emissions from the transportation of employees between their homes and their worksites. A reporting company's Scope 3 emissions from employee commuting include the Scope 1 and Scope 2 emissions of third-party transportation providers and emission of employees.

Category 7 emissions can be calculated using the fuel-based method, distance-based method, or average-data method. The NIVI platform supports the *Distance-based Method* and the *Average-based Method.*

To report emissions from Category 7 activities using the *Distance-based Method*, users should navigate to the *Scope 3 -> Employee Travel and Commuting -> Employee Commuting* menu and select *Distance-based Method* from the calculation method dropdown menu. After selecting the method, the user can add the mode of transport and distance travelled. Multiple modes of transport can be added. Multiple lines can also be added under the same site.

To report emissions from Category 7 activities using the *Average-based Method*, users should navigate to the *Scope 3 -> Employee Travel and Commuting -> Employee Commuting* menu and select *Average-based Method* from the calculation method dropdown menu. After selecting the method, the user can add number of employees, average distance travelled by an average employee per day, average breakdown of transport modes used by employees and average number working days per year. Multiple modes of transport can be added. Multiple lines can also be added under the same site.

Scope 3 Category 8 – Upstream Leased Assets

Category 8 includes emissions from the operation of assets that are leased by the reporting company in the reporting year and not already included in the reporting company's Scope 1 or Scope 2 inventories. This category is applicable only to companies that operate leased assets (i.e., lessees). For companies that own and lease assets to others (i.e., lessors), see Category 13 (Downstream leased assets).

Category 8 emissions can be calculated using the asset-specific method, lessor-specific method, or average-data method. The NIVI platform supports the *Asset-specific Method*.

To report emissions from Category 8 activities using the *Asset-specific Method*, users should navigate to the *Scope 3 -> Leased Assets* and create the specific leased asset including the *Site* equity or operational control share in the leased asset.

Once the leased asset is created the user can add emissions and electricity using information for the specific asset. Multiply emissions can be reported. Multiply assets can be created under the same *Legal Entity*.

Scope 3 Category 9 – Downstream Transportation and Distribution

Category 9 includes emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled by the reporting company.

This category also includes emissions from retail and storage. Outbound transportation and distribution services that are purchased by the reporting company are excluded from Category 9 and included in Category 4 (Upstream transportation and distribution) because the reporting company purchases the service. Category 9 includes only emissions from transportation and distribution of products after the point of sale.

Category 9 Downstream Transportation emissions can be calculated using the fuel-based method, distance-based method, or spend-based method. The NIVI platform supports the *Distance-based Method*. To report emissions from upstream transportation activities using the Distance-based Method, users should navigate to the *Scope 3 -> Transportation and Distribution -> Downstream Transportation* menu, where they should select the logistic method, transported volumes, and distance travelled. Multiple lines can be added under the same site.

Category 9 Downstream Distribution emissions can be calculated using the site-specific method or the average-data method. The NIVI platform supports the *Average-data Method*. To report emissions from upstream distribution activities using the *Average-data Method*, users should navigate to the *Scope 3 -> Transportation and Distribution -> Downstream Distribution* menu, where they should specify stored volumes, warehouse-specific emission data per metric ton per day of storage, and the average number of days products are stored in the specific warehouse. Multiple warehouses can be added under the same site.

Scope 3 Category 10 – Processing of Sold Products

Category 10 includes emissions from processing of sold intermediate products by third parties (e.g., manufacturers) subsequent to sale by the reporting company. Intermediate products are products that require further processing, transformation, or inclusion in another product before use, and therefore result in emissions from processing subsequent to sale by the reporting company and before use by the end consumer. Emissions from processing should be allocated to the intermediate product.

Category 10 emissions can be calculated using the site-specific method, or average-data method. The NIVI platform supports the *Site-specific Method,* which involves determining the amount of fuel and electricity used and the amount of waste generated from processing of sold intermediate products by the third party and applying the appropriate emission factors.

To report emissions from Category 10 activities using the *Site-specific Method*, users should navigate to the *Scope 3 -> Sold Products* and create the specific sold product also adding the volume of the sell.

Once the product is added to NIVI platform, users shall navigate to *Scope 3 -> Sold Products -> Processing of Sold Products* menu, where they can report electricity and fuel spent during sold product processing but also associated generated waste. Multiple lines can also be added under the same product.

Scope 3 Category 11 – Use of Sold Products

Category 11 includes emissions from the use of goods and services during their entire lifetime which are sold by the reporting company during the reporting year. A reporting company's Scope 3 emissions from the use of sold products include the Scope 1 and Scope 2 emissions of end users, which encompass both consumers and business customers using the final products.

In Category 11, companies are required to include direct use-phase emissions of sold products, such as consumed electricity, burned fuel, and fugitive emissions. Companies may also account for indirect use-phase emissions of sold products, particularly when these emissions are expected to be significant.

Category 11 emissions are calculated based on the product type. Products can be categorized into three types: those that directly consume energy (fuels or electricity) during use, fuels and feedstocks, and products that contain greenhouse gases (GHGs) and emit them during use. The NIVI platform supports emissions calculations for all these product types.

To report emissions from Category 11 activities, users should navigate to the *Scope 3 -> Sold Products* menu and, unless already existing, create a specific sold product entry, including the volume of sales.

Once the product is added to the NIVI platform, users should navigate to *Scope 3 -> Sold Products -> Use of Sold Products* menu, where they can report the total amount of electricity and fuel used by the sold product during its lifetime. This information can be estimated by the manufacturer using the product data sheet, expected lifetime, and expected utilization. Users can also report expected fugitive emissions from product use. Multiple lines can be added under the same product.

Scope 3 Category 12 – End-of-Life Treatment of Sold Products

Category 12 includes emissions from the waste disposal and treatment of products including packaging sold by the reporting company (in the reporting year) at the end of their life. This category includes the total expected end-of-life emissions from all products sold in the reporting year.

Calculating emissions from Category 12 requires assumptions about the end-of-life treatment methods used by consumers. Companies are required to report a description of the methodologies and assumptions used to calculate emissions.

Category 12 emissions can be calculated using the supplier-specific method, waste-type-specific method, or average-data method. The NIVI platform supports the *Waste-type-specific Method*.

To report emissions from Category 12 activities, users should navigate to the *Scope 3 -> Sold Products* menu and, unless already existing, create a specific sold product entry, including the volume of sales.

To report emissions from Category 12 activities using the *Waste-type-specific Method*, users should navigate to the *Scope 3 -> Sold Products -> End-of-life Treatment* menu, where they can report the source of waste, waste type, waste quantity in metric tonnes, and treatment type.

Scope 3 Category 13 – Downstream Leased Assets

Category 13 includes emissions from the operation of assets that are owned by the reporting company (acting as lessor) and leased to other entities in the reporting year that are not already included in Scope 1 or Scope 2. This category is applicable to lessors (i.e., companies that receive payments from lessees). Companies that operate leased assets (i.e., lessees) should refer to Category 8 (Upstream leased assets).

Category 13 emissions can be calculated using the asset-specific method, lessor-specific method, or average-data method. The NIVI platform supports the *Asset-specific Method*.

To report emissions from Category 13 activities using the *Asset-specific Method*, users should navigate to the *Scope 3 -> Leased Assets* and create the specific leased asset including the *Legal Entity* equity or operational control share in the leased asset and the emissions. The equity or operational control share can also be used if the reporting company leases an asset for only part of the reporting year. Multiply assets can be created under the same *Legal Entity*.

Scope 3 Category 14 – Franchises

Category 14 includes emissions from the operation of franchises not included in Scope 1 or Scope 2. A franchise is a business operating under a license to sell or distribute another company's goods or services within a certain location. This category is applicable to franchisors (i.e., companies that grant licenses to other entities to sell or distribute its goods or services in return for payments, such as royalties for the use of trademarks and other services). Franchisors should account for emissions that occur from the operation of franchises (i.e., the Scope 1 and Scope 2 emissions of franchisees) in this category.

Category 14 emissions can be calculated using the franchise-specific method and average-data method. The NIVI platform supports both, the *Franchise-specific* and *Average-based Method.*

To report emissions from Category 14 activities, users should navigate to the *Scope 3 -> Franchises and Investments* menu and, unless already existing, create a *Franchise* entry. Multiple *Franchises* can be created under the same *Legal Entity*.

To report emissions from Category 14 activities using the *Franchise-specific Method*, users should navigate to the *Scope 3 -> Franchises -> Franchises Emissions* menu and select *Franchise-specific Method* from the calculation method dropdown menu. After selecting the method, the user can add emissions type, emissions origin and emissions volume. Multiple emission types can be added.

To report emissions from Category 14 activities using the *Average-based Method*, users should navigate to the *Scope 3 -> Franchises -> Franchises Emissions* menu and select *Average-data Method* from the calculation method dropdown menu. After selecting the method, the user can select *Franchise* type and specify the *Franchise Operation Days* for the selected *Franchise* type. Multiple *Franchise* types can be added.

Scope 3 Category 15 – Investments

Category 15 includes Scope 3 emissions associated with the reporting company's investments during the reporting year that are not already included in Scope 1 or Scope 2. This category applies to investors (i.e., companies that make investments with the objective of making a profit) and companies that provide financial services. It is also applicable to investors that are not profit-driven, such as multilateral development banks, and the same calculation methods should be used. Investments are categorized as a downstream Scope 3 category because providing capital or financing is a service provided by the reporting company.

Category 15 is primarily designed for private financial institutions (e.g., commercial banks), but it is also relevant to public financial institutions (e.g., multilateral development banks, export credit agencies) and other entities with investments not included in Scope 1 or Scope 2.

Category 15 emissions can be calculated using the investment-specific method and the average-data method. The NIVI platform supports the *Investment-specific Method*.

To report emissions from Category 15 activities, users should navigate to the *Scope 3 -> Franchises and Investments* menu and create the *Investment* entry if it does not already exist. Multiple investments can be created under the same legal entity.

When creating the *Investment*, users should add investment-specific emissions. It is also possible to define the share of the specific investment for which the chosen legal entity is responsible.