



# Greenhouse Gas Protocol (Dual Reporting) Report for Avanza

Assessment Period: 2019

Produced on Jan. 27, 2020 by *Our Impacts* on behalf of U&W

# Assessment Details

## Consolidation Approach

Operational Control

## Organisational Boundaries

Operations of Avanza

### Included

- Avanza

## Operational Boundary

- Air travel
- Cars
- Electricity
- Employee owned cars
- IT Equipment
- Paper and printed material
- Rail (train, tram, light rail, underground)
- Taxi

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# Introduction

A greenhouse gas (GHG) emissions assessment quantifies the total greenhouse gases produced directly and indirectly from a business or organisation's activities. Also known as a carbon footprint, it is an essential tool, providing your business with a basis for understanding and managing its climate change impacts.

A GHG assessment quantifies all seven Kyoto greenhouse gases where applicable and is measured in units of carbon dioxide equivalence, or CO<sub>2</sub>e<sup>1</sup>. The seven Kyoto gases are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF<sub>3</sub>), sulphur hexafluoride (SF<sub>6</sub>) and perfluorocarbons (PFCs). The global warming potential (GWP) of each gas is illustrated in the Table 1.

**Table 1. GWP of Kyoto Gases (IPCC 2007)**

| Greenhouse Gas                          | GWP            |
|-----------------------------------------|----------------|
| Carbon dioxide (CO <sub>2</sub> )       | 1              |
| Methane (CH <sub>4</sub> )              | 25             |
| Nitrous oxide (N <sub>2</sub> O)        | 298            |
| Hydrofluorocarbons (HFCs)               | 124 - 14,800   |
| Perfluorocarbons (PFCs)                 | 7,390 - 12,200 |
| Nitrogen trifluoride (NF <sub>3</sub> ) | 17,200         |
| Sulphur hexafluoride (SF <sub>6</sub> ) | 22,800         |

This assessment has been carried out in accordance with the World Business Council for Sustainable Development and World Resources Institute's (WBCSD/WRI) Greenhouse Gas Protocol; a Corporate Accounting and Reporting Standard, including the GHG Protocol Scope 2 Guidance. This protocol is considered current best practice for corporate or organisational greenhouse gas emissions reporting. GHG emissions have been reported by the three WBCSD/WRI Scopes.

Scope 1 includes direct GHG emissions from sources that are owned or controlled by the company such as natural gas combustion and company owned vehicles.

Scope 2 accounts for GHG emissions from the generation of purchased electricity, heat and steam generated off-site. As the subject of this assessment operates in markets which offer contractual instruments with product or supplier-specific data, scope 2 emissions are reported using both the location-based method and the market-based method. The location-based method applies average emission factors that correspond to the grid where consumption occurs, whereas the market-based method applies emission factors that correspond to energy purchased (or not purchased) through contractual instruments. Contractual instruments include energy attribute certificates, direct energy contracts, and supplier specific emission rates. The subject of this assessment has ensured that any contractual instruments used in the market-based method have met the Scope 2 Quality Criteria, as defined in the Guidance. Where contractual instruments do not meet the Quality Criteria, or where contractual instruments were not purchased, market-based scope 2 emissions have been calculated using residual mix emission factors. Where residual mix emission factors are not available, market-based scope 2 emissions have been calculated using default location grid-average emission factors, per the Protocol hierarchy. This may result in double counting between electricity consumers, as an adjusted emission factor taking into account voluntary purchases of electricity with specific attributes was not available.

Scope 3 includes all other indirect emissions such as waste disposal, business travel and staff commuting. Reporting of these activities is optional under the WBCSD/WRI GHG Protocol, but as they can contribute a significant portion of overall emissions Ecometrica recommends they are reported where applicable.

A GHG assessment is an essential tool in the process of monitoring and reducing an organisation's climate change impact as it allows reduction targets to be set and action plans formulated. GHG assessment results can also allow organisations to be transparent about their climate change impacts through reporting of GHG emissions to customers, shareholders, employees and other stakeholders. Regular assessments allow clients to track their progress in achieving reductions over time and provide evidence to support green claims in external marketing initiatives such as product labelling or CSR reporting. Ecometrica GHG assessments are designed to be transparent, consistent and repeatable over time.

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<sup>1</sup> Carbon dioxide equivalent or CO<sub>2</sub>e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact.

# Data Quality and Availability

In order to provide the most accurate estimate of an organisation's GHG emissions, primary (actual) data should be used where it is available, up to date and geographically relevant. Secondary data in the form of estimates, extrapolations and industry averages may be used when primary data is not available. Table 2 details the quality of data submitted for this assessment with the key assumptions used stated below.

## Data Quality Overview



| Location-based Accuracy Overview |                         |            |
|----------------------------------|-------------------------|------------|
|                                  | tCO <sub>2</sub> e/year | %          |
| Actual                           | 210                     | 92.1       |
| Estimated                        | 18                      | 7.87       |
| <b>Total</b>                     | <b>228</b>              | <b>100</b> |



| Market-based Accuracy Overview |                         |            |
|--------------------------------|-------------------------|------------|
|                                | tCO <sub>2</sub> e/year | %          |
| Actual                         | 199                     | 88.7       |
| Estimated                      | 25.3                    | 11.3       |
| <b>Total</b>                   | <b>224</b>              | <b>100</b> |

**Table 2. Data Quality and Availability**

| Source of emissions                         | Data quality |
|---------------------------------------------|--------------|
| <b>Business Travel</b>                      |              |
| Air travel                                  | Actual       |
| Employee owned cars                         | Actual       |
| Hired cars                                  | N/A          |
| Hotel night stays                           | N/A          |
| Rail (train, tram, light rail, underground) | Actual       |
| Taxi                                        | Actual       |
| <b>Company-Owned/Leased Vehicles</b>        |              |
| Cars                                        | Actual       |
| <b>Electricity and Heating</b>              |              |
| Electricity                                 | Actual       |
| <b>Office supply</b>                        |              |
| Coffee and fruit                            | N/A          |
| Copy Paper                                  | N/A          |
| Paper and printed material                  | Estimated    |
| <b>Hosted servers</b>                       |              |
| District cooling                            | N/A          |

|                     |        |
|---------------------|--------|
| Electricity         | Mixed  |
| Materials purchased |        |
| IT Equipment        | Actual |

## Key Assumptions

The total reported emissions for 2019 are higher than for 2018 because more activities have been included. Emissions from purchased IT equipment have been included for the first time. Also reporting of business travel, particularly of flights and train journeys, has been improved.

# Assessment Summary for Avanza

**Gross Overall Emissions (location-based): 228 tCO<sub>2</sub>e**

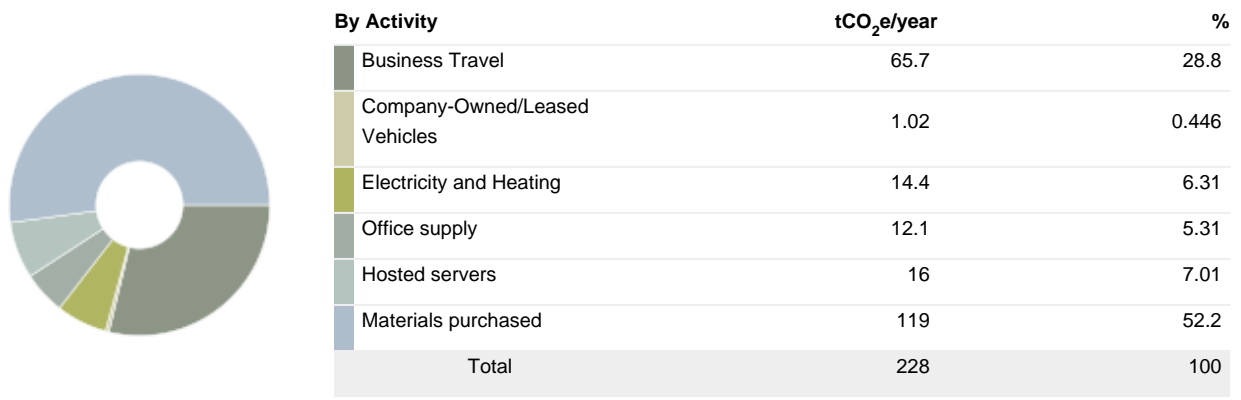
**Gross Overall Emissions (market-based): 224 tCO<sub>2</sub>e**

## Key Performance Indicators

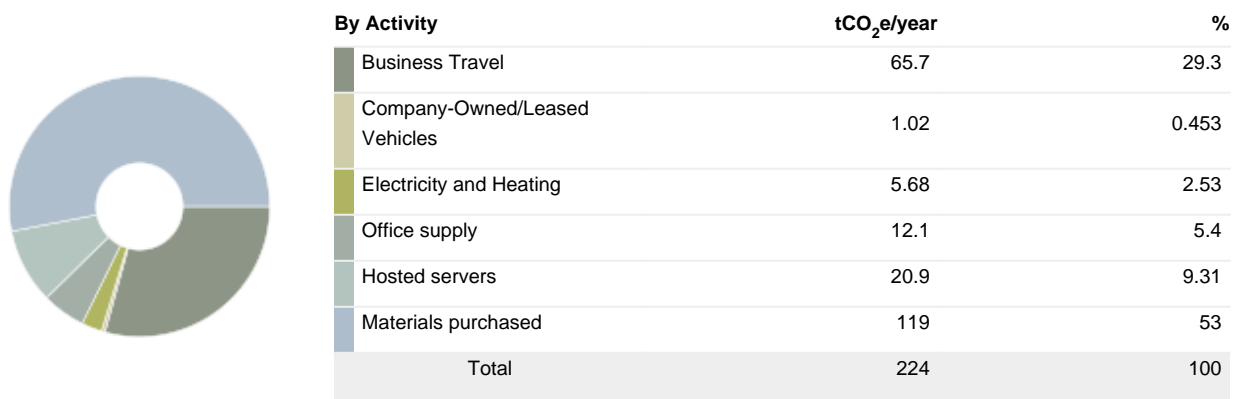
Absolute GHG emissions will vary over time and often correspond to the expansion or contraction of an organisation. It is useful therefore to use reporting metrics that take these effects into account and monitor relative GHG emissions intensity. A common emissions intensity metric is tonnes of CO<sub>2</sub>e per full time equivalent. This has been calculated, along with other relevant metrics, in the table below:

| Data                               | KPI                                                                         |
|------------------------------------|-----------------------------------------------------------------------------|
| 353,849 Portföljvärde (MSEK)       | 6.45e-4 tCO <sub>2</sub> e per Portföljvärde (MSEK) (Location-Based)        |
| 1,193,000 Turnover (KSEK)          | 1.91e-4 tCO <sub>2</sub> e per Turnover (KSEK) (Location-Based)             |
| 429 Full Time Equivalent Employees | 0.532 tCO <sub>2</sub> e per Full Time Equivalent Employee (Location-Based) |
| 353,849 Portföljvärde (MSEK)       | 6.34e-4 tCO <sub>2</sub> e per Portföljvärde (MSEK) (Market-Based)          |
| 1,193,000 Turnover (KSEK)          | 1.88e-4 tCO <sub>2</sub> e per Turnover (KSEK) (Market-Based)               |
| 429 Full Time Equivalent Employees | 0.523 tCO <sub>2</sub> e per Full Time Equivalent Employee (Market-Based)   |

## Summary by Activity (Location-Based, tCO<sub>2</sub>e)



## Summary by Activity (Market-Based, tCO<sub>2</sub>e)



## Summary by WBCSD/WRI Scope (Location-Based, tCO<sub>2</sub>e)



| Scope        | tCO <sub>2</sub> e/year | %          |
|--------------|-------------------------|------------|
| Scope 2      | 12.6                    | 5.52       |
| Scope 3      | 216                     | 94.5       |
| <b>Total</b> | <b>228</b>              | <b>100</b> |

**Summary by WBCSD/WRI Scope (Market-Based, tCO<sub>2</sub>e)**



| Scope        | tCO <sub>2</sub> e/year | %          |
|--------------|-------------------------|------------|
| Scope 2      | 0.027                   | 0.0121     |
| Scope 3      | 224                     | 100        |
| <b>Total</b> | <b>224</b>              | <b>100</b> |

**Summary by Greenhouse Gas**

| Greenhouse Gas    | GWP | tGHG/year<br>(Location-Based) | tCO <sub>2</sub> e/year<br>(Location-Based) | tGHG/year<br>(Market-Based) | tCO <sub>2</sub> e/year<br>(Market-Based) |
|-------------------|-----|-------------------------------|---------------------------------------------|-----------------------------|-------------------------------------------|
| CO <sub>2</sub>   | 1   | 88.1                          | 88.1                                        | 60.1                        | 60.1                                      |
| CH <sub>4</sub>   | 25  | 0.00458                       | 0.115                                       | 2.24e-4                     | 0.00561                                   |
| N <sub>2</sub> O  | 298 | 0.00161                       | 0.48                                        | 9.63e-4                     | 0.287                                     |
| CO <sub>2</sub> e | 1   | 139                           | 139                                         | 164                         | 164                                       |
| <b>Total</b>      |     |                               | <b>228</b>                                  |                             | <b>224</b>                                |



# Summary of Scope 2 Market-Based Method for Avanza

## Energy Consumed and Emissions By Factor Type In Scope 2 Market-Based Method

Scope 2 Market-Based Energy



Scope 2 Market-Based Emissions



| Emission Factor Type                    | Energy     |            | Market-Based Emissions |            |
|-----------------------------------------|------------|------------|------------------------|------------|
|                                         | MWh        | %          | tCO <sub>2</sub> e     | %          |
| Client-supplied market-based instrument | 541        | 100        | 0.027                  | 100        |
| Residual mix factors                    | 0          | 0          | 0                      | 0          |
| Default location-based factors          | 0          | 0          | 0                      | 0          |
| <b>Total</b>                            | <b>541</b> | <b>100</b> | <b>0.027</b>           | <b>100</b> |

# Detailed Results

## Detailed Summary by WBCSD/WRI Scope

### Location-Based methodology

| Source of Emissions                                                              | tCO <sub>2</sub> /yr | tCH <sub>4</sub> /yr | tN <sub>2</sub> O/yr | Total Emissions (tCO <sub>2</sub> e/yr) | %            |
|----------------------------------------------------------------------------------|----------------------|----------------------|----------------------|-----------------------------------------|--------------|
| <b>Scope 2 Total</b>                                                             | <b>12.5</b>          | <b>0.00194</b>       | <b>2.87e-4</b>       | <b>12.6</b>                             | <b>5.52%</b> |
| Electricity and Heating Total                                                    | 12.5                 | 0.00194              | 2.87e-4              | 12.6                                    | 5.52%        |
| Electricity                                                                      | 12.5                 | 0.00194              | 2.87e-4              | 12.6                                    | 5.52%        |
| <b>Scope 3 Total</b>                                                             | <b>75.7</b>          | <b>0.00264</b>       | <b>0.00132</b>       | <b>216</b>                              | <b>94.5%</b> |
| Business Travel Total                                                            | 59.1                 | 1.67e-4              | 9.42e-4              | 65.7                                    | 28.8%        |
| Air travel                                                                       | 58.2                 | 1.56e-4              | 9.21e-4              | 58.5                                    | 25.6%        |
| Air travel: Flights, long-haul, economy, upstream emissions                      | 0                    | 0                    | 0                    | 4.03                                    | 1.77%        |
| Air travel: Flights, medium-haul, economy, upstream emissions                    | 0                    | 0                    | 0                    | 2                                       | 0.875%       |
| Air travel: Flights, short-haul, upstream emissions                              | 0                    | 0                    | 0                    | 0.0614                                  | 0.0269%      |
| Employee owned cars                                                              | 0.167                | 0                    | 0                    | 0.167                                   | 0.0733%      |
| Rail (train, tram, light rail, underground)                                      | 0.142                | 1.04e-5              | 3.6e-6               | 0.154                                   | 0.0674%      |
| Rail (train, tram, light rail, underground): Train, national, upstream emissions | 0                    | 0                    | 0                    | 0.0277                                  | 0.0121%      |
| Taxi                                                                             | 0.597                | 1.12e-6              | 1.74e-5              | 0.603                                   | 0.264%       |
| Taxi: Regular taxi, upstream emissions                                           | 0                    | 0                    | 0                    | 0.143                                   | 0.0625%      |
| Company-Owned/Leased Vehicles Total                                              | 1.01                 | 5.71e-5              | 2.05e-5              | 1.02                                    | 0.446%       |
| Cars                                                                             | 1.01                 | 5.71e-5              | 2.05e-5              | 1.02                                    | 0.446%       |
| Electricity and Heating Total                                                    | 0.819                | 1.27e-4              | 1.89e-5              | 1.81                                    | 0.793%       |
| Electricity: Electricity - transmission & distribution losses (MCR)              | 0.819                | 1.27e-4              | 1.89e-5              | 0.828                                   | 0.363%       |
| Electricity: Electricity grid, T&D losses, upstream emissions                    | 0                    | 0                    | 0                    | 0.0554                                  | 0.0243%      |
| Electricity: Electricity grid, generated, upstream emissions                     | 0                    | 0                    | 0                    | 0.927                                   | 0.406%       |
| Hosted servers Total                                                             | 14.7                 | 0.00229              | 3.4e-4               | 16                                      | 7.01%        |
| Electricity                                                                      | 13.8                 | 0.00215              | 3.19e-4              | 14                                      | 6.13%        |
| Electricity: Electricity - transmission & distribution losses (MCR)              | 0.91                 | 1.42e-4              | 2.1e-5               | 0.92                                    | 0.403%       |
| Electricity: Electricity grid, T&D losses, upstream emissions                    | 0                    | 0                    | 0                    | 0.0616                                  | 0.027%       |
| Electricity: Electricity grid, generated, upstream emissions                     | 0                    | 0                    | 0                    | 1.03                                    | 0.451%       |
| Materials purchased Total                                                        | 0                    | 0                    | 0                    | 119                                     | 52.2%        |
| IT Equipment                                                                     | 0                    | 0                    | 0                    | 119                                     | 52.2%        |
| Office supply Total                                                              | 0                    | 0                    | 0                    | 12.1                                    | 5.31%        |
| Paper and printed material                                                       | 0                    | 0                    | 0                    | 12.1                                    | 5.31%        |

|              |             |                |                |            |             |
|--------------|-------------|----------------|----------------|------------|-------------|
| <b>Total</b> | <b>88.1</b> | <b>0.00458</b> | <b>0.00161</b> | <b>228</b> | <b>100%</b> |
|--------------|-------------|----------------|----------------|------------|-------------|

### Market-Based methodology

| Source of Emissions                                                              | tCO <sub>2</sub> /yr | tCH <sub>4</sub> /yr | tN <sub>2</sub> O/yr | Total Emissions (tCO <sub>2</sub> e/yr) | %              |
|----------------------------------------------------------------------------------|----------------------|----------------------|----------------------|-----------------------------------------|----------------|
| <b>Scope 2 Total</b>                                                             | <b>0</b>             | <b>0</b>             | <b>0</b>             | <b>0.027</b>                            | <b>0.0121%</b> |
| Electricity and Heating Total                                                    | 0                    | 0                    | 0                    | 0.027                                   | 0.0121%        |
| Electricity                                                                      | 0                    | 0                    | 0                    | 0.027                                   | 0.0121%        |
| <b>Scope 3 Total</b>                                                             | <b>60.1</b>          | <b>2.24e-4</b>       | <b>9.63e-4</b>       | <b>224</b>                              | <b>100%</b>    |
| Business Travel Total                                                            | 59.1                 | 1.67e-4              | 9.42e-4              | 65.7                                    | 29.3%          |
| Air travel                                                                       | 58.2                 | 1.56e-4              | 9.21e-4              | 58.5                                    | 26.1%          |
| Air travel: Flights, long-haul, economy, upstream emissions                      | 0                    | 0                    | 0                    | 4.03                                    | 1.8%           |
| Air travel: Flights, medium-haul, economy, upstream emissions                    | 0                    | 0                    | 0                    | 2                                       | 0.89%          |
| Air travel: Flights, short-haul, upstream emissions                              | 0                    | 0                    | 0                    | 0.0614                                  | 0.0274%        |
| Employee owned cars                                                              | 0.167                | 0                    | 0                    | 0.167                                   | 0.0746%        |
| Rail (train, tram, light rail, underground)                                      | 0.142                | 1.04e-5              | 3.6e-6               | 0.154                                   | 0.0686%        |
| Rail (train, tram, light rail, underground): Train, national, upstream emissions | 0                    | 0                    | 0                    | 0.0277                                  | 0.0123%        |
| Taxi                                                                             | 0.597                | 1.12e-6              | 1.74e-5              | 0.603                                   | 0.269%         |
| Taxi: Regular taxi, upstream emissions                                           | 0                    | 0                    | 0                    | 0.143                                   | 0.0636%        |
| Company-Owned/Leased Vehicles Total                                              | 1.01                 | 5.71e-5              | 2.05e-5              | 1.02                                    | 0.453%         |
| Cars                                                                             | 1.01                 | 5.71e-5              | 2.05e-5              | 1.02                                    | 0.453%         |
| Electricity and Heating Total                                                    | 0                    | 0                    | 0                    | 5.65                                    | 2.52%          |
| Electricity: MBI Upstream Emissions                                              | 0                    | 0                    | 0                    | 5.65                                    | 2.52%          |
| Hosted servers Total                                                             | 0                    | 0                    | 0                    | 20.9                                    | 9.31%          |
| Electricity                                                                      | 0                    | 0                    | 0                    | 9.78                                    | 4.36%          |
| Electricity: MBI Upstream Emissions                                              | 0                    | 0                    | 0                    | 11.1                                    | 4.95%          |
| Materials purchased Total                                                        | 0                    | 0                    | 0                    | 119                                     | 53%            |
| IT Equipment                                                                     | 0                    | 0                    | 0                    | 119                                     | 53%            |
| Office supply Total                                                              | 0                    | 0                    | 0                    | 12.1                                    | 5.4%           |
| Paper and printed material                                                       | 0                    | 0                    | 0                    | 12.1                                    | 5.4%           |
| <b>Total</b>                                                                     | <b>60.1</b>          | <b>2.24e-4</b>       | <b>9.63e-4</b>       | <b>224</b>                              | <b>100%</b>    |

# Annual Activity Data

| Source of Emissions                         | Value   | Unit    |
|---------------------------------------------|---------|---------|
| <b>Business Travel</b>                      |         |         |
| Air travel                                  |         |         |
| Long-haul, economy (RFI 2)                  | 245,560 | pass.km |
| Medium-haul, economy (RFI 2)                | 116,987 | pass.km |
| Short-haul (RFI 2)                          | 2,201   | pass.km |
| Employee owned cars                         |         |         |
| Average new swedish car                     | 1,360   | km      |
| Rail (train, tram, light rail, underground) |         |         |
| Swedish rail                                | 40,576  | pass.km |
| Train, national                             | 3,248   | pass.km |
| Taxi                                        |         |         |
| Average taxi                                | 78,816  | SEK     |
| <b>Company-Owned/Leased Vehicles</b>        |         |         |
| Cars                                        |         |         |
| Small car (unknown fuel)                    | 6,800   | km      |
| <b>Electricity and Heating</b>              |         |         |
| Electricity                                 |         |         |
| Electricity consumption (Nordic Market)     | 541     | MWh     |
| <b>Hosted servers</b>                       |         |         |
| Electricity                                 |         |         |
| Electricity consumption (Nordic Market)     | 600,769 | kWh     |
| <b>Materials purchased</b>                  |         |         |
| IT Equipment                                |         |         |
| Total CO2e emissions                        | 119     | tonne   |
| <b>Office supply</b>                        |         |         |
| Paper and printed material                  |         |         |
| Office paper (from Sweden)                  | 98,120  | kg      |

## Key Observations

The total reported emissions for 2019 are higher than for 2018 because more activities have been included. Emissions from purchased IT equipment have been included for the first time. Also reporting of business travel, particularly of flights and train journeys, has been improved.

## References

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Client-supplied market-based instrument emission factor

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