



LABELS FOR A CHANGE! LABELING FOR THE PLANET – CLIMATE FOOTPRINT

The food we eat stands for 30% of the global carbon dioxide emissions^{1]}. It. Is. Not. Ok. And waiting is not an option—we need to act. Now. Most people would like to make a move, but don't know how. Our new **Climate Footprint** labeling is a nudging tool, that will help the Picadeli consumer make greener decisions when mixing their salad.

Picadeli's Climate footprint, or as we call it **Climate Footprint** is based on a life-cycle analysis (LCA), a standardized method to make a field-to-fork estimate of the total climate impact of a product. Perhaps you didn't know, but the average Picadeli salad has already a climate impact that is about half (!) of a European average meal. That is good. But good is not enough.

The Paris climate-agreement aiming to strengthen the global response to the threat of climate change by limit the temperature increase to 1.5 degrees Celsius. One key to reach that target is to lower each served meal to 0,5 kg CO₂e. Except our latest climate act initiatives, such as removing all red meat and grow our plant-based range, we are continuing to reduce our emissions and have done so with 8% over the past two years.

Our goal is to reach below the 0,5 kg CO₂e per average meal by 2030—the level needed to stop reverting the global warming^{2]} and show you can eat tasty food with a low climate impact. Combined with the health labelling **Nutri-Score**, we hope to contribute to a healthier life—both for you as an individual and the planet.

^{1]} IPCC, 2019

^{2]} EAT Lancet, 2019

WHY CLIMATE LABELING?

Our **Climate Footprint** is a way to nudge the consumer to choose the mix of an even more climate friendly salad. Combined with the health labelling **Nutri-Score**, we hope to contribute to a healthier life—both for the individual and the planet.

WHY CLIMATE FOOTPRINT?

We believe the carbon dioxide emissions need to be reduced. Now. And that is the reason we calculated a **Climate Footprint** [footprint] so that we can nudge the Picadeli consumer to make conscious and thereby hopefully even better choices. The labelling is based on a life-cycle analysis (LCA) data where we have compared the carbon dioxide emissions for our products from growing in the field to our green bowl.

WHAT IS A LIFE CYCLE ANALYSIS?

A Life Cycle Analyses (LCA) is a standardized method to make a field-to-fork calculations of the total climate impact of a product. This is what we've based Picadeli's **Climate Footprint** on.

HOW WERE THE CALCULATIONS MADE?

The climate figures presented are per kg of product or per meal from cultivation and primary production to serving in the salad bar or as a food-to-go product. Which includes, among other things, cultivation of raw materials, transport and production and cooking. The method is standardized in ISO 14040. The LCA calculations made shall be seen as indicative, this because there are many things that affect our products climate impact over time, such as variations over the year and between different producers. The climate calculations for the products in our salad bar are based on mainly three different data sources:

- RISE climate database for food v2.03 - For products produced in or distributed via Sweden [RISE, 2022]
- Agribalyse 3.0 - For products produced in France for the French market [ADEME, 2020]
- Supplier data – Supplier specific LCA data is used to improve accuracy when available

By using several data sources and comparing the results have we been able to validate the values and to identify differences between the datasets.

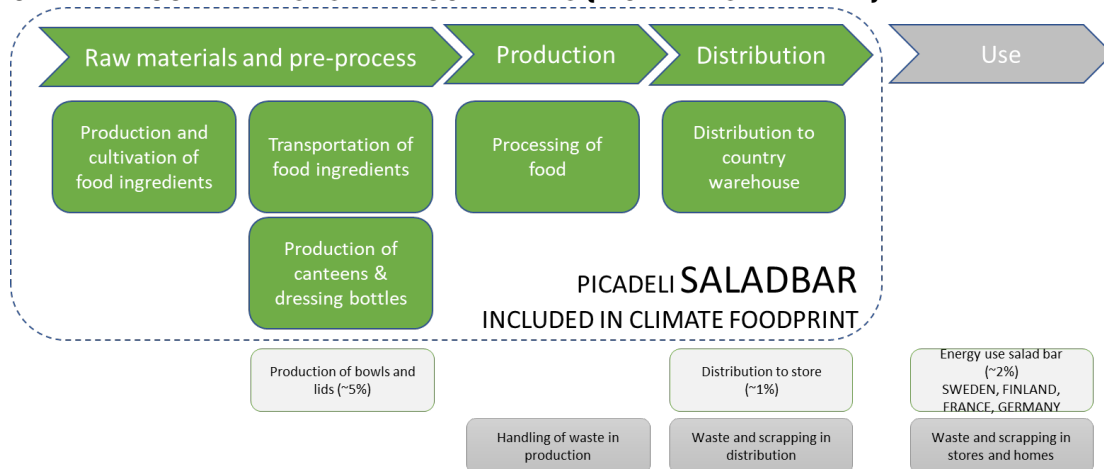
Our calculations only include climate impact. For a comprehensive picture of a products environmental impact, more aspects such as water consumption and impact on biodiversity should also be included.

The purpose of the climate figures is to enable a comparison between the products in the salad bar and for our food-to-go products. For this purpose, Picadeli Climate Foodprint has a good accuracy. Since the field to fork approach in LCA calculations always contains possible proximities and sources of deviations including different system boundary definitions, direct comparison of climate figures is generally not recommended on value to value level. This is because there may be variations in methodology and data selection.

WHAT IS INCLUDED IN THE CALCULATIONS AND WHAT IS NOT?

The purpose with Climate Foodprint is to show the product as purchased in the store, to make the comparison between comparable products in a salad. The calculations therefore focus on the aspects of relevance for the comparison. Other aspect of minor importance for the comparison has been excluded, either as they are seen as neglectable or as all product gets the same impact such as distribution to store and the energy usage in the salad bar.

CLIMATE FOODPRINT SYSTEM BOUNDARIES (PICADELI SALAD BAR):



Included:

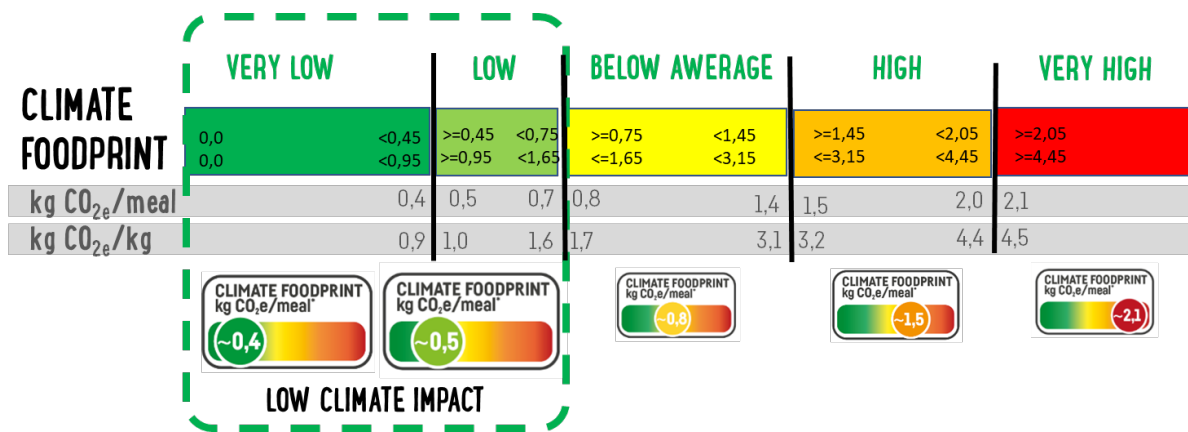
The purpose with Climate Foodprint is to show the product as purchased in the store. For ingredients in the saladbar that means that we include a field to bar approach. Including production, transportation, and processing of the food.

Excluded:

Areas which are excluded are relatively small or dependent on market and store execution. Picadeli salad bowl is excluded, this as all purchased of salad in the salad bar requires a bowl. It is not relevant for the comparison between different ingredients. Other aspect that is excluded as it do not impact the comparisons of the different ingredients is travel of the customer to the store, energy usage in the salad bar, distribution of the ingredients from the central warehouse to the store. In addition, these aspect accounts for relatively small share of the total emissions from a Picadeli salad.

What does the values mean?

The values you see is the **kg CO₂e/kg food** or **kg CO₂e/per meal**. They are calculated “Field to bar” or for food-to-go product as field-to-fork, as defined in the system boundaries. The results are presented with the limits in the table below.



kg CO₂e/kg – is the ready to eat product as sold

kg CO₂e/per meal - is a 450 gram [417,5g food] * Picadeli salad containing the average sales (all products included). Individual salads can differ, but since all sales are included this provides a true value of the Picadeli salad meal, no cherry picking of the best combinations.

**Based on receipt average from stores*

HOW EXACT IS THE VALUES AND WHY DO WE USE THE ~ SYMBOL?

LCA is a standardized way to calculate carbon dioxide emissions, but the field to fork approach contains a lot of approximations and the system boundaries can be set in different way. To highlight that values can be compared between Picadeli products, but comparison with other sources need to be done with knowledge about the different set-ups we are using the approximate symbol ~.

HOW DO YOU SPLIT THE DAILY INTAKE OF FOOD BETWEEN THE DIFFERENT MEALS?

The threshold for meal is based on a daily distribution of climate impact from food according to (WRI, 2022):

- Lunch and Dinner 30% each
- Breakfast 20%
- Snack, desserts, and beverages 20%

For ingredients and products that is a snack or ingredient and not a complete meal the Climate Footprint is stated per kg of product.

Notice! RISE is using 35% for lunch or dinner. However, this value also includes beverages and accompaniments.

WHAT'S THE LOGIC BEHIND YOUR CLIMATE-SCALE?

Our climate scale is set to guide the consumer to make a climate friendly choice. The scale is divided in to five categories ranked between dark green and red. The dark green level is set in accordance with the scenarios from EAT Lancet and is the level that we need to reach to halter the global warming. The other level of the scale show if the meal or ingredient takes us in the right direction. They have their basis in the current European average climate impact for a meal. Yellow and green is steps on the way as they are below the current average while orange and red are above and shall be eaten less frequently.

Dark green – According to the EAT-Lancet report “Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems” food production can by 2050 account for 5 Gton CO₂e to be on a sustainable level regarding climate impact. In 2050 the earth is expected to have 9.7 billion inhabitants on earth, this gives an allowable impact per meal (lunch or dinner) below 0,42 kg CO₂e (based on 30% share for lunch and dinner each).

In the RISE definition a 35% share has been used, defining dark green as below 0,5 kg CO₂e
With this reasoning Picadeli set below **0,45 kg CO₂e/meal** or **0,95 kg CO₂e/kg** as our threshold.

5 Gton CO₂e / 9.7 billion people = 1,41 kg CO₂e per day & person

30% of daily intake for lunch x 1,41 kg CO₂e per day & person = 0,42 kg per meal & person (EAT+WRI)

35% of daily intake for lunch x 1,41 kg CO₂e per day & person = 0,49 kg per meal & person (RISE)

Green – In order to reach the Paris Agreement, we need to cut the global carbon emissions drastically already by 2030. Depending on literature source and industry the exact reduction varies. However, setting a threshold referring to that the European emissions from food need to be cut in half or more is in line with the EU commitment in the Paris agreement. According to WRI an average European meal (lunch or dinner) has a climate impact of 1,45 kg CO₂e. To be in line with the reduction commitment, the average European lunch or dinner cut in half, eg a meal that has 0,72 kg CO₂e / meal is in line with the short term, 2030-target.

In the RISE definition a 50% reduction of the current lunch/dinner average in Sweden has been used, defining green as below 0,8 kg CO₂e/ meal.

With this reasoning Picadeli set below **0,75 kg CO₂e/meal** or **1,65 kg CO₂e/kg** as our threshold.

4,28 kg CO₂e per day & person x 30% of daily intake for lunch = 1,45 kg per lunch & person

50% x 1,45 kg per meal & person = 0,72 per meal & person

Yellow – According to WRI an average European meal (lunch or dinner) has a climate impact of 1,45 kg CO₂e. An ingredient or meal that is below the current average reduces the average and thereby takes us against the future targets. Hence, this can be seen as good choice but can be improved.

With this reasoning we set below **1,45 kg CO₂e/meal** or **3,25 kg CO₂e/kg** as our threshold.

4,28 kg CO₂e per day & person x 30% of daily intake for lunch = 1,45 kg per lunch & person

Orange - According to WRI an average European meal (lunch or dinner) has a climate impact of 1,45 kg CO₂e. An ingredient or meal that is above the current average do not take us in right direction and is thereby marked orange. However, if it is an individual ingredient in the salad bar is above average, a salad including that ingredient can be below the average. The upper limit is defined to cover poultry, fish and some diary products, since they for many people are the first step towards a lower carbon dioxide emission diet.

With this reasoning we set above **1,45 kg CO₂e/meal** or **3,25 kg CO₂e/kg** as our threshold.

4,28 kg CO₂e per day & person x 30% of daily intake for lunch = 1,45 kg per lunch & person

Red – Products with high carbon dioxide emissions that used in larger percentage in a salad or a meal, so they cannot be compensated by the other ingredients in the salad or a meal, resulting in making it

impossible to reach a total climate impact of the salad in line with the target to come below 0,5 kg CO₂e. This threshold is set to 2,05 kg of CO₂e per meal, based on the reasoning defining orange. With this reasoning we set above 2,05 kg CO₂e/meal or 4,5 kg CO₂e/kg as our threshold.

Notice! To get a value per kg of ingredient we use the average weight for a Picadeli salad bowl as definition for salad bar meal. [450 g based on average weight Picadeli saladbowl]

A PICADELI SALAD HAS JUST ABOVE THE HALF OF THE CLIMATE IMPACT OF A EUROPEAN AVERAGE MEAL, HOW IS THIS CALCULATED?

According to WRI an average European meal (lunch or dinner) has a climate impact of 1,45 kg CO₂e. According to our calculations the climate impact of an average Picadeli salad picked in our salad bars was 0,83 kg CO₂e [2021] which is above half. The average is for all European markets and is based on an average Picadeli salad bowl on 417,5g.

PICADELI HAS A 2030 TARGET OF 0,5 KG CO₂E/MEAL AND CLAIM THAT IS TRULY CLIMATE SUSTAINABLE FOOD, WHAT IS THE LOGIC?

According to the EAT-Lancet report “Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems” food production can by 2050 account for 5 Gton CO₂e to be on a sustainable level regarding climate impact. With 9.7 billion inhabitants on earth, this gives an allowable impact per meal (lunch or dinner) below 0,5 kg CO₂e. We have aligned our target with this.

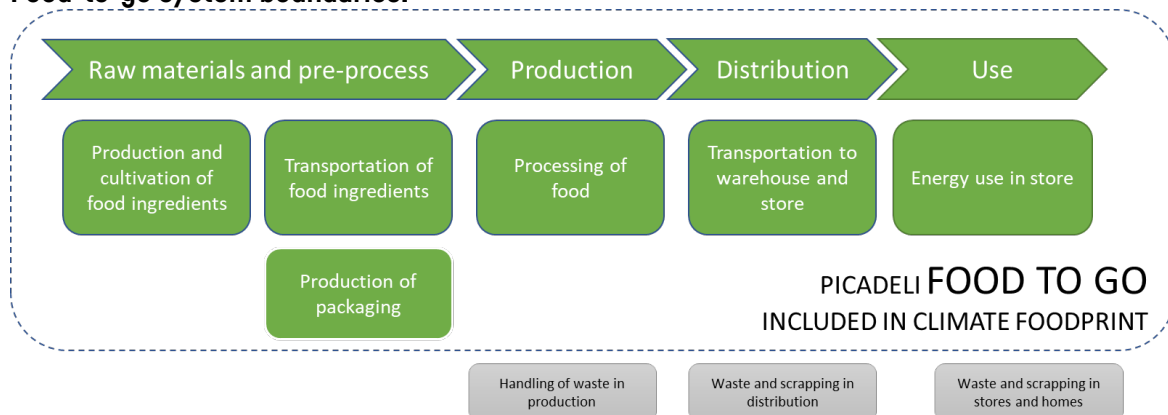
WHY DO PICADELI OFFER PRODUCTS WITH HIGH CLIMATE IMPACT?

We are continuing to reduce our climate impact and step-by-step we are either replacing or reducing the climate impact of the ingredients with the highest climate impact. For example, we do no longer have any red meat in the assortment and are constantly developing our assortment of plant-based proteins. Also, if one ingredient has a high climate impact does not mean that the salad in total will have a high climate impact, so with the CLIMATE FOOTPRINT it will be easier for the consumer to create its own climate friendly favorite salad. Picadeli monitor the sales to ensure our total sales are developing in accordance with our targets.

FOOD TO GO, PREPACKED WRAPS, SALADS, SANDWICHES ETC?

For Food-to-go products the customers are purchasing a complete product and therefore we are including all emissions until the point of purchase. Normally, as it is a food-to-go product, it is eaten by the consumer directly after the purchase and no further processing or transportation of the product is made.

Food-to-go system boundaries:



Included:

The purpose with climate foodprint is to show the product as purchased in the store.

Excluded:

Areas which are excluded are relatively small or highly dependent on market and store execution. Since salads are served cold within limited time, also the user part has been excluded, since the impact is low

IN SWEDEN AND FINLAND YOU ALSO LABEL PRE-PACKED FOOD, IS IT THE SAME?

We use the same calculations, but we are displaying the values either as per meal or per kg and we include the packaging that the product is packed in into the calculations. We have chosen carbon dioxide emissions per meal because it is easier to understand for consumers. But we made a strict definition of what we considered to be a main dish. Snacking products and accompaniments are always labeled per kg, to avoid misleading consumers.

WHAT IS YOUR CRITERIA FOR THE NUTRITIONAL PROFILE OF A PREPACKED MEAL?

For prepacked products which are considered to be eaten as the main dish of a lunch or dinner we are defining **Climate footprint** for the meal.

Basic criteria for a meal:

- The product shall have enough calories to keep you saturated and give energy reflecting to 25-35% of the recommended daily intake of calories (2000 – 2600 kcal* EFSA), eg min 500 kcal and not over 910 kcal.
- To ensure a good nutritional profile, the meal shall fulfill the demands in Nutri-score A, B or C. Picadeli will not define Nutri-score D and E products as a good nutritional profile suitable for a main dish.

Since **Climate Footprint** allocate 30% of the daily carbon dioxide emissions to lunch and dinner, we defined the daily energy intake to be aligned with this definition. Since recommended energy intake varies and are not fully stringent, we defined the main dish in a meal to have 25-35% of the recommended daily calory intake recommendation from EFSA eg 500-910 kcal/meal.

Prepacked products not fulfilling the meal definition is labeled per kg (kg CO_{2e}/ kg) to avoid misleading consumers.

*<https://www.efsa.europa.eu/en/press/news/130110>

REFERENCES

IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems

WRI, 2022 - Waite, R., and S. Blondin. 2022. "Identifying Cool Food Meals: 2022 Update." Technical Note. Washington, DC: World Resources Institute.

WWF, 2021: One planet plate 2021, Kriterier och bakgrund

EAT Lancet 2019 - Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., ... & Murray, C. J. [2019]. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. The Lancet, 393(10170), 447-492.

EFSA, 2013, Scientific Opinion on Dietary Reference Values for energy, EFSA Journal 2013;11(1):3005

RISE, 2020. Research Institute of Sweden (RISE) Food climate database v2.03, <https://www.ri.se/en/what-we-do/expertises/rise-food-climate-database>

ADEME, 2020. Agribalyse 3.0 – the French agricultural and food LCI database. <https://doc.agribalyse.fr/documentation-en/>

ABBREVIATIONS

IPCC - The Intergovernmental Panel on Climate Change, UN official climate panel.

WRI – World Resources Institute

WWF – World Wildlife Foundation

EAT LANCET - EAT Foundation - international research organization focusing on food for planet and health within planetary limits. Lancet – One of the major scientific newspaper. They joined forces and published the EAT LANCET report

RISE – The Research Institute of Sweden