

REQUIREMENTS

Product carbon footprints

Requirements for assurance - Part 2: Claims and labelling

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1 General requirements for footprint claims and labelling

1.1 Claims

- The Carbon Trust enables categories of claim: comparison, status, non-carbon. **The claim may be used** separately or in association with the Carbon Trust Footprint Label.
- To be eligible for a claim the product shall be verified in accordance with the requirements in 'Requirements for assurance — Part 1'.

Table 1. The categories of claim enabled by the Carbon Trust.

Verified comparison	Verified status	Non-carbon verified
Reducing	Verified footprint (see 1.7)	Water measured
Lower		Water reducing
		100% Renewable electricity

1.2 Eligibility

- Where the organisation wishes to apply claim to their product the additional requirements in Part 1, Sections 6-9 apply.
- Products and/or SKU groups (see Part 1, Section 5.5.1) are eligible for to use a claim where the requirements in the below Table relevant to the product type are met:

Table 2. Requirements for a product or SKU group to be eligible for the Carbon Trust Product Footprint Label or claim.

Type of product/ Product group	Description	Primary data requirement	Verification/Claim options
Established product	This applies to any existing, identifiable product that has been on the market for at least a year.	Data representative of 12 consecutive months' production and use.	 Verification for internal and external communication. Claim — All applicable (additional requirements necessary).
Prototype	New products not yet in full production.	Highest available quality proxy data.	Verification for internal use only.No Verified Label applicable.
New-to-world product	Recently (or soon-to- be) launched products with limited production data. Product does not have a direct predecessor that may be used for comparison.	 Available production data must be demonstrably representative of 12 consecutive months' production and use. May require re-calculation of footprints following commencement of full production. 	 Verification for internal and external communication. Claim – All applicable (additional requirements necessary), excludes lower market standard. See Part 1, Section 5.20 for more details on inclusion in a verification.
New product within established product line or product family	Recently (or soon-to- be) launched products with limited production data within an established product line or product family and with a direct predecessor.	 Available production data must be demonstrably representative of 12 consecutive months' production and use. May require re-calculation of footprints following commencement of full production. 	 Verification for internal and external communication. Claim – All applicable (additional requirements necessary), excludes lower market standard.

Short life-span product	Products that are replaced quickly (e.g., in less than two years).	For reduction assessment, replacement products shall have an identical functional unit and perform product replacement or change as below.	 Verification for internal and external communication. Claim – All applicable (additional requirements necessary).
Product replacement	A new product that specifically replaced an old one.	 Equivalent functional unit. Equivalent role in the product portfolio. Previous product removed from portfolio. Clear product transition, incl. branding, marketing, etc. (which may not be complete at assessment time). Primary data requirements are the same as new products. 	Verification for internal and external communication. Claim – All applicable (additional requirements necessary).
Product change	A product undergoing incremental change.	 No clear product replacement. Primary data requirements are the same as new products. 	 Verification for internal and external communication. Claim – All applicable (additional requirements necessary).

1.3 Communications requirements

- The organisation shall apply 'The Carbon Trust Product Footprint Label usage guidelines' when using any Product Footprint Label. The guidelines can be provided by the Client Manager.
- The organisation shall apply the Carbon Trust marketing guidelines when communicating any information in relation to the verified claim.

1.4 General requirements:

• The organisation shall meet the requirements of Part 1 and the requirements of the relevant PCC (see Part 1, Section 4.2).

1.5 Geographical areas

- The organisation shall define geographical areas for which the claim is sought.
- The label is only valid for specified geographical areas of sale/use.
- SKU/area grouping rules into one product footprint apply, which constrains how large a region can be (see Part 1, Section 5.5.1).

E.g., Electricity emission factors for electricity consumption can vary considerably depending on the regional or country grid production mix, and therefore a comparison of an electric car versus combustion engine car would vary considerably depending on the grid mix in the region of sale and use.

E.g., Additionally, the market share of different technical solutions (comparator market shares) will vary by region.

1.6 Duration of claim period

- The duration of a Label Licence for a carbon neutral claim is one year.
- The duration of all Labels achieving a validation is one year.
- The duration of all other Labels achieving verification is two years.
- In some cases, a Label Licence can be awarded for claim periods less than one year.

1.7 Eligibility for verified footprint claim

- The verified footprint claim may be applied for and licensed on a solely measurement basis for internal purposes and not in association with the Carbon Trust Product Carbon Footprint Label, OR;
- The verified footprint claim may be applied for and licensed on a solely measurement basis in the following circumstances:

 For cradle-to-gate footprints (business-to-business), in all instances (to facilitate the footprints being used in downstream product carbon footprints, for intermediate products, or used in the organisational carbon footprints under Scope 3 Category 1 'Purchased Goods and Services', or Category 2 'Capital Goods', as applicable, for final products).

2 Requirements for reducing claims

2.1 General requirements:

The organisation shall meet the requirements in Section 1, and all the requirements in this section.

2.2 Eligibility for the claim

- The claim may be awarded for achieved reductions based on the following scenarios:
 - Year-on-year reductions Collect 24 months of consecutive data and verify two footprint periods.
 The most recent data period shall show reductions compared to the footprint period before and the reductions will be verified.
 - Reductions against a baseline Collect 24 months of data and verify two footprint periods. The
 most recent data period shall show reductions compared to the baseline period and the
 reductions will be verified.
 - The baseline period may be older than 24 months but shall be no earlier than 2015.
 - The baseline period shall also align to the organisation's science-based target baseline footprint period where applicable.
 - The reductions presented shall not show any increases in the years' in between.
 - Re-verification Verify the most recent year (two years following previous verification). The most
 recent data period shall show reductions compared to the previous footprint period or baseline
 and the reductions will be verified.
- The claim may be awarded for planned reductions based on the following scenarios:
 - Verify the 12-month footprint period and validate planned reductions through an accompanying carbon management plan (see 2.4). The re-verification shall then show achieved reductions between the baseline footprint period and the latest footprint period.
 - Validate the footprint period based on forecast data and validate planned reductions through an accompanying carbon management plan (see 2.4).
 - The following year the estimated footprint for the baseline footprint period shall be rebaselined, i.e., recalculated using actual data from the baseline footprint period and verified.
 - The claim period shall then be valid for two years from achievement of verification and follow the standard verification process (see Re-verification).
- The claim period duration for **achieved reductions** shall be two years.
- The claim period duration for planned reductions shall be one year.

2.3 Requirements for reductions:

- The below is relevant for existing products and re-verification scenarios.
- The organisation shall have taken action(s) which (cumulatively) achieve(s) reductions in carbon emissions related to the product carbon footprint(s).
- Reductions which are eligible for the claim:
 - Actions within the organisation's control or influence.
 - Changes in the materials/resources used, or mass of resources used, shall be eligible to count as a reduction for each verification.
 - Purchase of certificates linked to an input (e.g., electricity, sustainable food crops) may be used as a one-time reduction per input.

Note: These may be allowed as continual reduction drivers (up to 100% supply) if purchases increase incrementally.

Note: One-time per input – A product can have many inputs, each of these can qualify as the reduction driver across different verification years if individually and separately their supply becomes sourced from a lower emission alternative (e.g., use of biofuel).

- Switching supply to a lower emission alternative (e.g., purchasing RECs, use of biofuel) shall count
 as a reduction one time per input. If purchases increase incrementally, these may be allowed as
 continual reduction drivers (up to 100% supply).
- Maintaining a verified deforestation-free supplier means that the change in footprint due to amortised LUC may count as a reduction. The start of this data period shall be the cut-off in the verification standard defining when deforestation shall stop.

Note: Inconsistent use of verification schemes is a risk to achieving reductions.

- Improving waste management in the life cycle of the footprinted product which allows waste to be sold as a co-product towards another life cycle to act as a resource in other.
- Switching to and maintaining supplier relationships.
- Not all reductions may occur in an organisation's supply chain or own operations. If suitable
 evidence can be provided, downstream reductions may be applicable. Evidence shall be provided
 describing a programme of change or marketing campaign that will lead to a modified use-phase
 in future, e.g., new cooking instructions resulting in lower use-phase emissions contributing to an
 overall reduction in the product carbon footprint.
- Reductions which are not eligible for the claim:
 - New legislation in the country of sale.
 - Use of offsets.
 - Economic price allocation changes.
- Organisations shall neither be rewarded nor penalised because of actions and events that are outside of their control/influence, e.g., grid decarbonisation, changes in recycling rates, etc.
 - In this case, the life cycle stage which has been impacted by actions or events that are outside of the organisation's control/influence shall not be considered as part of the reduction assessment.
- Duration of claim is two years, and the data for compared product footprints should not exceed this timeframe except upon prior written approval from the Carbon Trust.
- For re-verifications, a reduction is determined by comparing the product footprint results over two years, in line with the footprint period.
- There are no requirements regarding the size of any achieved quantitative reduction.
- The organisation shall also provide a carbon management plan every footprint period (see 2.4).

2.3.1 Pre-requisites for calculating reductions

 The following sections describe the key elements of this process. A central theme is the maintenance of consistency – it is only possible to meaningfully compare two footprints if they were created using equivalent use of standards, methodology and data.

Note: Consistency is not intended to be the same as accuracy regarding actual GHG emissions, which are typically estimated using secondary emission factors.

- Any comparison may only be made between data representing footprints over a maximum two-year footprint period, except upon prior written approval from the Carbon Trust.
- The new footprint shall use primary data no more than 15 months old at the contract signing.
 - Older data may be used if deemed representative.
- If re-verification the product footprint should be compared against the previously verified footprint result and meet the requirements Part 1 and Section 1.

2.3.2 Rebaselining

See Part 1, Section 9.2.

Note: If any major changes in modelling methodology occur, it is recommended to rebaseline the baseline footprint period in a new model with original activity data.

2.3.3 Banking large reductions for the future

- If the organisation is unable to demonstrate a reduction, they may qualify for banking to maintain their reducing claim. The below requirements shall be met:
 - The organisation shall show a reduction from a rebaselined previously verified footprint period (two verifications ago).
 - This initial reduction shall be greater than 5%, using non-rounded values.
 - For example, if an organisation showed a reduction of 27% comparing 2018 to 2017 (first verification), however showed an increase of 13% in 2020 (at re-verification). This would qualify for banking as the organisation has demonstrated a reduction comparing 2020 to 2017.

Table 3. Requirements for banking reductions and maintaining Label Licence.

Footprint period	Emissions (kgCO ₂ e/FU)	Change (%)
2017 (comparison year)	110	
2018 (footprint period for first verification)	80	-27%
2020 (footprint period for re-verification)	90	13%

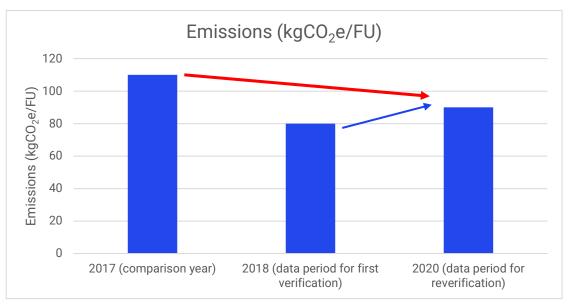


Figure 1. Requirements for banking reductions and maintaining Label Licence.

- Claims of this nature shall reference the original footprint year, so that the footprint period covered by a reduction claim is clear.
- In the case of new products, banking may be applied when a comparison has been made to a direct predecessor or within a product line. Banking would not be applicable when the comparator is a hypothetical predecessor not within an established product line or product family.

2.4 Carbon management plan

- All products aiming to achieve the reducing claim shall provide a carbon management plan (existing, new to world, re-verification). The carbon management plan shall include:
 - Claims about future reductions supported by a suitable, publicly disclosed, reduction plan (for example within a Product Emissions Report).

- Provide reference to the targeted reduction (%), planned means of avoiding and reduction emissions related to specific activities. For example, switching to light weight glass to reduce distribution emissions.
- A failure to demonstrate planned reductions may result in the organisation's reduction claim not being verified.

2.5 Requirements for reducing claim related to packaging

 As per Sections 2.1-2.4 but applicable only to packaging products produced by packaging manufacturers.

3 Requirements for lower claims

3.1 General requirements

- The applicant product shall meet the requirements for the 'General requirements for verified claims' in Section 6 to achieve a verified footprint and all the requirements in this section to qualify for the lower claim.
- The footprint of both the applicant product and the comparator products may vary by geographical area.
- The market share of comparator products may vary by geographical area also.
 Note: Where the applicant product is one of the higher carbon footprint products within a region fulfilling the defined function, it cannot be compared to other products that are worse than this.

3.2 Comparative claims

- The lower comparison claim may be achieved through either of the following scenarios:
 - Lower within product family: The organisation shall achieve verification for both the applicant
 and comparator products which shall have the same unit of analysis and be produced by the
 same company in accordance with the verification requirements in Part 1, and achieve
 verification against the lower claim requirements in Section 3.3.1 (see 3.3).
 - Lower compared to market: The organisation shall achieve verification for the applicant product, and provide reasonable evidence, justification and uncertainty ranges to verify the product claiming lower is verifiably lower than the market comparators (see 3.4).
- The purpose of the lower claim shall be to provide a claim of recognition, drive changes in purchasing choice, and differentiate between products. This may be accompanied by the Footprint Label.
- The lower claim Scenario 2 shall not be applicable for new to world or estimated products. These
 products shall use the reducing claim.

3.3 Comparing products in the same product family

3.3.1 Key requirements for analysis

- The organisation shall define the applicant product i.e., the product which seeks to carry the verified lower claim.
 - The applicant product and comparator product within product family and organisation shall have achieved verification or validation in accordance with Section 5.
- The organisation shall define the comparator product(s)
 - There may be more than one comparator, but they shall be referenced in the communication claim and satisfy the requirements in Section 3.3.2
 - The product comparator shall be defined in any communication and claims made about the lower status of the applicant product.
- The organisation shall evidence due diligence to prove there are not significantly lower emission alternatives to the applicant product in the geography of sales specified.

3.3.2 Key requirements for verification

- The comparator product(s) shall:
 - Have a calculated and verified product carbon footprint in accordance with Part 1, Section 5.
 - Be defined clearly to enable verification.
 - Fulfil the same function as the applicant product.
 - Be readily substitutable for the applicant product.
 - Be within the defined geographical area of sales/use (see Part 1, Section 5.5.1).
 - Have the same unit of analysis produced by the same organisation as the applicant product.
 - Have a data quality and uncertainty analysis completed.
- The applicant product shall:
 - Have achieved footprint verification.
 - Have a lower footprint than the comparator product to be eligible for the lower claim.
 - Be at least 5% lower carbon footprint than the comparator product.
 - Have a data quality and uncertainty analysis completed.

3.3.3 Achievement and communication

- The precise wording of the claim accompanying the Footprint Label shall be approved by the Carbon Trust marketing team, as an example it would read along the lines of 'The product footprint of Barista Oat milk has been verified as lower than the product footprint of Dairy milk.'
- The verifier shall issue a comparison report, letter of assurance, certificate of assurance and Label Licence.
- Use of the lower claim shall be supported by text and a link to a longer explanation (which may include an extended PER) on a website, which justifies how this product passes the criteria to carry this label. It is crucial that the basis for these comparisons is as clear and consistent as possible.

3.3.4 Potential rejection causes

The Carbon Trust may not accept the applicant product seeking the lower claim, for example where the
applicant product is one of the higher carbon products sold within a region fulfilling the defined function,
it cannot be compared to other products that are worse than this.

3.4 Comparing products to market comparators

3.4.1 Key requirements for analysis

- The organisation shall:
 - Define the applicant product i.e., the product which seeks to carry the verified lower claim.
 - The applicant product shall have achieved verification in accordance with Part 1, Section 5.
 - Define the product(s) which will be the comparators to the applicant product.
 - There may be more than one comparator product.
 - Comparator product(s) may be grouped based on technical similarity and the applicant may
 define which groups they are applying for the lower than claim to be compared to.
 - Provide product footprint(s) of the comparator product(s) per group of comparators.
 - If bill of materials of generic comparator product(s) is publicly available, an estimated footprint may be calculated. This should be completed using estimations of yield, bill of materials, manufacturing and due diligence actioned to estimate fugitive/process emissions.
 - Provide a data quality analysis of the applicant product and comparator product(s), aligning to the data quality requirements in Part 1, Section 5.23.
 - Provide an uncertainty analysis of the applicant product and comparator product(s), aligning to uncertainty analysis in Section 3.4.4.
 - The organisation should provide footprints for the best alternative per comparator product(s) group (e.g., lowest best alternative). If the lowest comparator product footprints within the group demonstrate a significantly higher footprint than the applicant product uncertainty

range, the organisation may qualify for the lower claim without completing an uncertainty analysis of the comparator product group(s).

- Define if cradle-to-gate or cradle-to-grave is applicable.
 - If cradle-to-gate is selected, the organisation shall measure downstream distribution as part of
 the comparison to achieve the lower claim for both applicant and comparator product(s);
 however, this does not need to be included in the verified footprint.
- Provide the due diligence to evidence the applicant product's wider environmental impacts are not substantially worse than the comparator product(s).
 - Wider environmental impacts include biological, water and air.
- Provide the due diligence to evidence that any low selling comparators with significantly lower
 footprints are non-commercial and non-scalable, for example made from a non-scalable source
 ingredient. This shall be evidenced that the low-selling comparator is not able to practically scale
 up.

3.4.2 Key requirements for verification

- The applicant product shall:
 - Have achieved footprint verification (see Part 1, Section 5).
- The comparator product(s) in each group shall:
 - Be defined clearly.
 - Fulfil the same function as the applicant product (see Part 1, Section 5.5.3).
 - Be readily substitutable for the applicant product, and scalable to be a substitute.
 - The verifier shall review the suggested comparators to ensure the product is a feasible alternative and can be scaled to a volume to be a competitor in terms of market share. This should be based on a qualitative metric.
 - If the product comparator is deemed not scalable, this shall be justified by the assessor in terms of research and evidence to show this is not scalable.
 - The comparator product(s) shall be within the defined geographical area of sales/use (see Part 1, Section 5.5.1).
 - Have a completed carbon footprint.
 - The comparator footprint shall be based on the maximum number of comparator footprints
 that can be procured and this shall have a reasonable data quality score, e.g., applicant
 product (mushroom steak) is 1000 times lower than market comparator (beef), then the data
 quality does not need to be as good as if the applicant and comparator product are two times
 lower. Comparator products shall be sourced from publicly available sources or verified by a
 third party.
 - If the footprint is old, steps shall be taken to show improvements likely to have occurred in intervening years taking a conservative approach to favour the comparator.
 - The methodology used may vary to that used for the applicant product. Steps shall be made to normalise any methodological differences.
 - Adjustments shall be made to represent each sales region.
 - Have a completed data quality assessment.
 - Have a completed uncertainty range.
- The verification shall:
 - Review the carbon footprint of the comparator product(s).
 - Compare the data quality scores of the applicant product and comparator product(s).
 - Review the uncertainty ranges defined by the organisation for the applicant product and comparator product(s).
 - The uncertainty ranges shall be reflective of the data quality analysis and factors such as known geographic region/upstream sourcing.

- Check the upper uncertainty range of the applicant product shall fall below the lower uncertainty range of the comparator product(s) in the specified region(s) to qualify for the lower claim.
 - The applicant product may achieve this in some regions but not others.
- If cradle-to-gate and the product is sold to different regions/global the downstream distribution of the applicant product and comparator product(s) shall be estimated.
 - The highest upper bound of the uncertainty range of the applicant product shall be below the lowest lower bound of the uncertainty range of all comparator products.

3.4.3 Data quality analysis

 The applicant product shall conform to the minimum data quality requirements described in Section 5.23. The data quality of the comparator product(s) footprints chosen for the assessment shall be evaluated following the below described data quality requirements, presenting calculations clearly for verification.

Table 4. Data quality parameters for lower claims.

Comments		Example options	
Product match		E.g., the comparator product has identical materials, processes, and use profiles	
Age	How well the comparator product carbon footprint matches the intended scope of the industry comparison for the applicant	E.g., the comparator product footprint activity data represents the same footprint period as the applicant product	
Geographic scope	product	E.g., the comparator product footprint represents the same manufacturing and sales market regions as the applicant product	
Credibility of source	How trustworthy and robust the provider of the comparator product carbon footprint is	E.g., the comparator product footprint is verified by the Carbon Trust	

3.4.4 Uncertainty analysis

- Uncertainty shall be evaluated for the range of comparator products identified for the analysis, and for
 the completed carbon footprint comparison study of the applicant product versus the comparator
 product(s). To prove a significant difference in the carbon footprint of the applicant product versus the
 comparator product, the uncertainty ranges from the two should not overlap.
- A lower emissions range and an upper emissions range shall be calculated for the carbon emissions calculated for each of the groups of comparator product(s). These ranges shall be estimated based on the data quality and completeness assessments conducted in accordance with the guidance provided in Part 1, Section 5.23.2 and Appendix 4.
- The uncertainty range may impact the validity of the claim, see Figure 2. Threshold for uncertainty ranges which determine qualification for the .

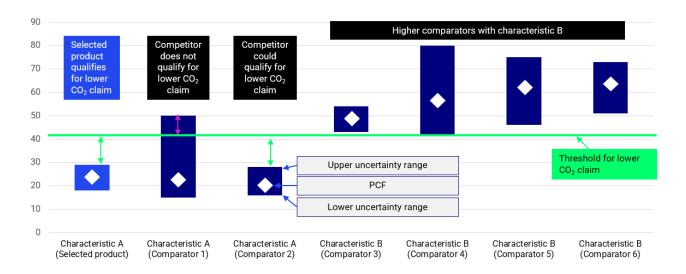


Figure 2. Threshold for uncertainty ranges which determine qualification for the lower claim.

3.4.5 Achievement and communication

- If the applicant product satisfies the requirements in Section 3.4, the selected product shall achieve verification to use the lower claim.
 - The precise wording of the claim accompanying the Footprint Label shall be approved by the Carbon Trust marketing team, it would read along the lines of 'The product footprint of applicant product has been verified as lower than the product footprint of comparator product(s)'.
- The verifier shall issue a comparison report, letter of assurance, certificate of assurance and Label Licence.
- Use of the lower claim shall be supported by text and a link to a longer explanation (which may include an extended PER) on a website, which justifies how this product passes the criteria to carry this label. It is crucial that the basis for these comparisons is as clear and consistent as possible.

3.4.6 Potential rejection cases

- The applicant product shall not achieve the lower claim where it is not possible to make a general comparison, for example where there is only one other comparable product (i.e., a duopoly).
 - The lower claim is not suitable in this instance as there is an inability for the comparison to be generalised.
- The applicant product may be disqualified if the wider environmental impacts are substantially worse than the higher comparator product(s).
 - Guidance: Significantly worse = ten times worse.
- The applicant product may be disqualified if there is a comparator product or an equivalent applicant product, with low sales but sufficient availability to be a practical alternative, with a significantly lower CO₂ footprint.
 - Guidance: Significantly lower = four times lower.
- If any competitor challenges the claims on achievement of lower claim or releases a product carbon
 footprint that contradicts the basis for the claim, then the organisation shall seek to review the basis of
 the Verification. If the challenge or contradicting product carbon footprint is found to be valid, the label
 shall be removed.

4 New products in existing verification labelling

4.1 General eligibility

- New product: Recently (or soon-to-be) launched products with limited available data.
- There is an existing validation covering a product which is functionally similar to the new product.
- The new product is <5% different in emissions to existing SKUs.
- The new product is <5% of total sales volume of the existing SKUs.

4.2 Requirements for labelling

- New products launched following a verification may use the relevant Footprint Label however the above requirements outlined in 10.1 shall be met.
- The organisation shall inform the Carbon Trust of the new products which will be launched using the label ahead of production.
- The organisation shall complete the new products log shared with the Client Manager. This shall be tracked by the Carbon Trust ahead of approval to ensure this meets the requirements listed above.
- On approval the client may label new products using the relevant Carbon Trust Footprint Label.
- Subsequent verifications the new products shall be footprinted for the footprint period and included within the verification, they shall meet the requirements of the relevant claim on subsequent verifications.

VERSION HISTORY

Version	Date	Summary of changes	Author	Approved by
1.0	11 February 2022	Initial version	Multiple	M. Barrow, S. Centty, J. Kazer, I. Catterall
2.0	11 October	Technical changes in relation to requirements for:	Multiple	M. Barrow, S. Centty, K. Dollery
	2022	 Product Consistency Criteria Biogenic carbon Verified Label, CO₂ measured scope Verified Label, reducing CO₂ scope 		
		Further minor technical and editorial changes.		
3.0	24 July 2023	Technical changes in relation to requirements for:	Multiple	M. Barrow, M. Hockaday, J. Newton
		 Data Quality Criteria Separation of technical (Part 1) and label/claims (Part 2) 		
		Further minor technical and editorial changes.		

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