Report of DFM to CCM 2023
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1. Introduction
This report describes the activities carried out by DFM in the field of mass in the period from May 2021 to April 2023.

2. Scientific research and development
DFM has participated in CCM Task Group on the Phases for the Dissemination of the kilogram following redefinition (CCM-TGPfD-kg).

DFM has worked strategies for evaluation of the stability of mass standards taking into account fluctuating values of the consensus value of the kilogram and the very large uncertainty assigned to the consensus values.

3. Key comparisons
DFM was a member of the support group for the key comparisons CCM.M-K8.2019 [12] and CCM.M-K8.2021 [13].

DFM did not participate in any key comparisons on mass in the period May 2021 to April 2023.

<table>
<thead>
<tr>
<th>Key comparison ID</th>
<th>Period</th>
<th>Measurement standards</th>
<th>Status</th>
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Table 1. Key comparisons on calibration of mass standards in which DFM has actively participated in the period May 2021 to April 2023.

4. Relevant publications
[7] Nielsen L 2014 Evaluation of mass measurements in accordance with the GUM Metrologia 51 S183-90
[8] Nielsen L et al 2015 Improving traceability to the international prototype of the kilogram Metrologia 52 538-51
[9] Davidson S et al 2016 Air–vacuum transfer; establishing traceability to the new kilogram Metrologia 53 A95-113
[10] Nielsen L 2016 Disseminating the unit of mass from multiple primary realisations *Metrologia* **53** 1306-16