

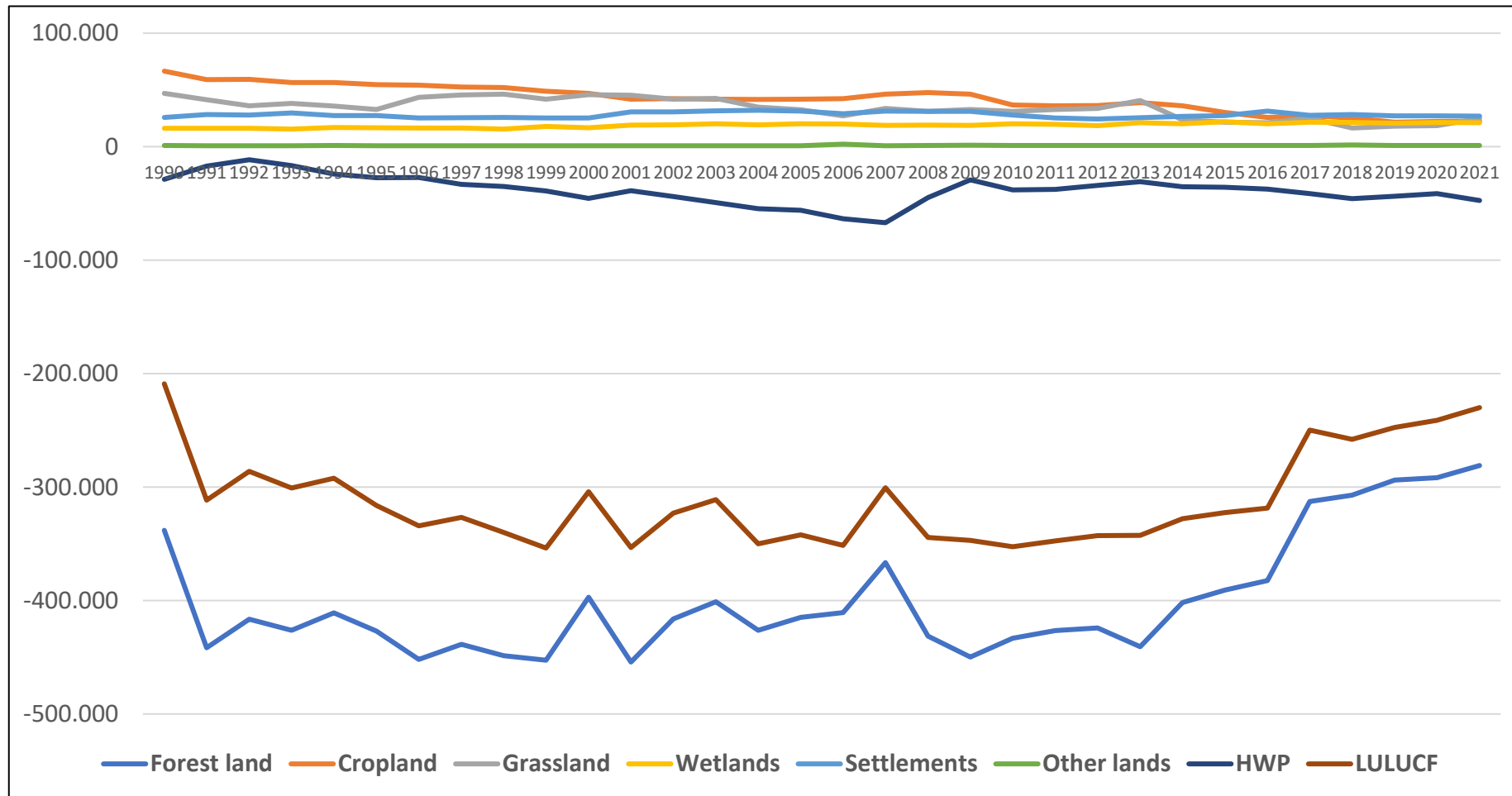
EU GHG inventory for LULUCF and Initial checks 2023



Peter Iversen/ Presentation date : 11 May



LULUCF 2023 submission (ktCO₂eq)



Net removals driven mainly by forest land and HWP, however with a declining trend
The declining trend driven by a decline in removals in the living biomass pool

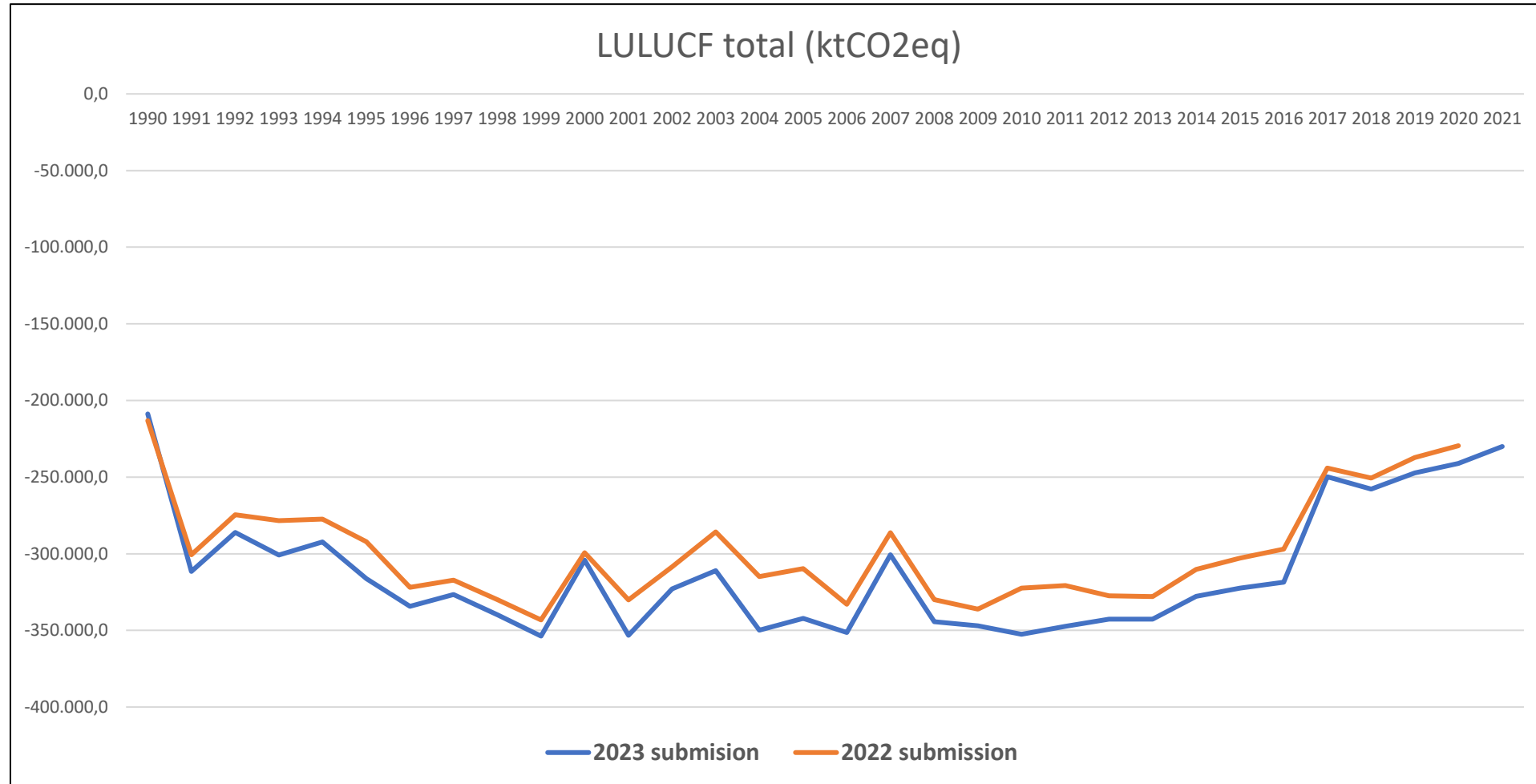


The GHG inventory has improved in 2023

- More pools are covered with an estimates (see table 6.5 in the EU NIR) →
 - Forest land 18 additional estimates;
 - Cropland 13 additional estimates and;
 - Grassland 10 additional estimates.
 - 14 of the 41 additional estimates are related to mineral soil
- MS use improved methods both for activity data and emission factors
- MS use new knowledge based on scientific publications
- MS perform recalculations based on new NFI data
- All of the above require recalculations of recent years or the full time series

Reporting category							
Cropland							
4.B.1. C-C				4.B.2. L-C			
LB	DOM	SOC min	SOC org	LB	DOM	SOC min	SOC org
E		E		E	E	E	
R		E	E	E	E	E	
E		R	E	E		E	
R		E	E	R		E	
R		R		E	E	E	
R		R		E	E	E	
E		R	E	E	E	E	
E		R	E	E	E	E	E
R		E	E	E	E	E	E

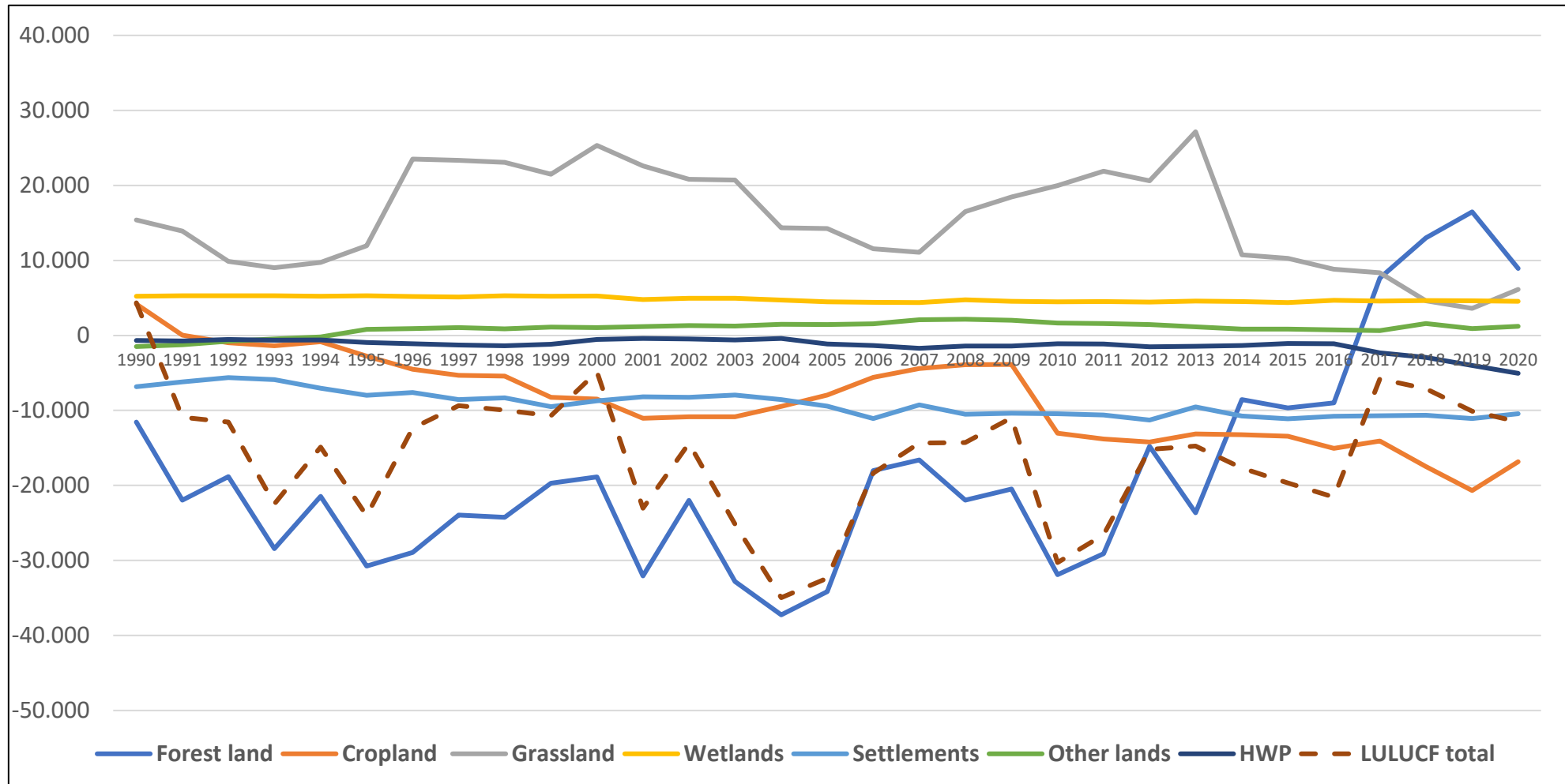
Recalculations at the EU level from 2022 to 2023



Increased net removals reported in 2023 compared to 2022 submission
GWP AR4 used for 2022 and GWP AR5 used for 2023

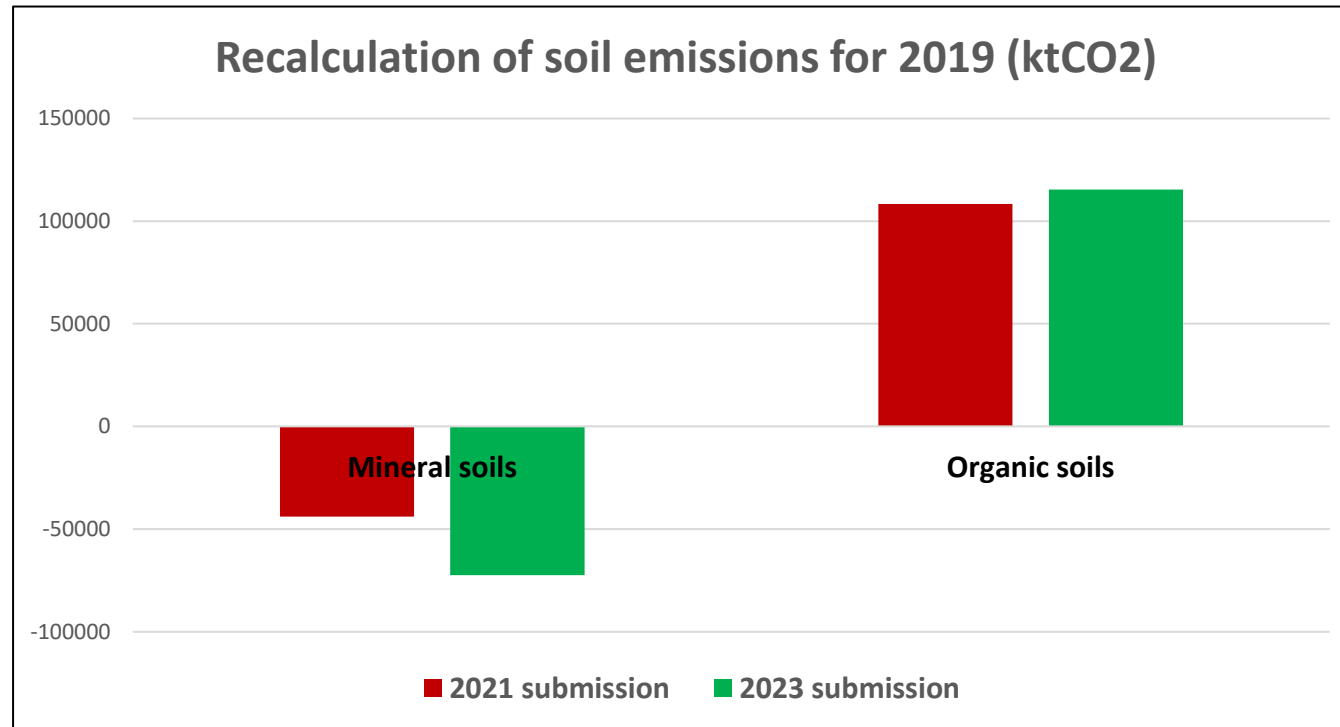


Recalculations 2022 to 2023 by land use category (ktCO₂eq)



Positive numbers mean net emissions have increased
On average recalculations for total LULUCF of 5.3% in the timeseries

Soil emissions reported in 2021 and 2023 submission (ktCO₂eq)



The sink in mineral soils increased 65% when comparing the 2021 and the 2023 submission for 2019
Cropland mineral soils is now a sink
Area of organic soils increased slightly



Type of observations made during the initial check

- Blank cells (11);
- Reporting zero (7);
- Identical values (11);
- Area inconsistencies (8);
- Conversions before 1990 (4);
- EF outliers (3);
- Spikes in time series (3);
- Recalculations (17);

And directly linked to LULUCF regulation (EU) 2018-841

- Use of tier 1 for a pool that contribute 25-30% of a key category (9)
- Non reporting of dead wood (9).

No May resubmission to the UN, thus no option to improve after the 15 March version

The 2023 initial check included 27 EU MS plus Iceland and Norway

New checks related to Regulation (EU) 2018/841 (1)

Article 5(4). Member States shall include in their accounts for each land accounting category any change in the carbon stock of the carbon pools listed in Section B of Annex I. Member States may choose not to include in their accounts changes in carbon stocks of carbon pools provided that the carbon pool is not a source. However, that option not to include changes in carbon stocks in the accounts shall not apply in relation to the carbon pools of **above-ground biomass, dead wood and harvested wood products**, in the land accounting category **of managed forest land**.

Nine observations

- **All Member States report the living biomass pool**
- **All but one MS report HWP – One MS don't have HWP production**
- **Most MS report dead wood. Some MS report IE, some report NA and in some cases, we were not sure where it is reported and whether it includes all the area under forest land remaining forest land**

Our interpretation: This obligation applies for the full time series – because we need time series consistency including for the base year (1990).

New checks related to Regulation (EU) 2018/841 (2)

Article 18(4) For emissions and removals for a carbon pool that accounts for at **least 25-30 % of emissions or removals in a source or sink category which is prioritised** within a Member State's national inventory system because its estimate has a significant influence on a country's total inventory of greenhouse gases in terms of the absolute level of emissions and removals, the trend in emissions and removals, or the uncertainty in emissions and removals in the land-use categories, **at least Tier 2 methodology** in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Nine observations

2 regarding living biomass, 3 regarding mineral soils and 6 regarding organic soils

We only raised an observation for the three categories: forest land remaining forest land, cropland remaining cropland and grassland remaining grassland when they were identified as Key Category in table 7, for the pools that numerical contribute with at least 25% of the total for the category and the pool is estimating using a Tier 1 approach.

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Peter Iversen/ LULUCF GHG inventory and initial checks/ Presentation date : 11 May