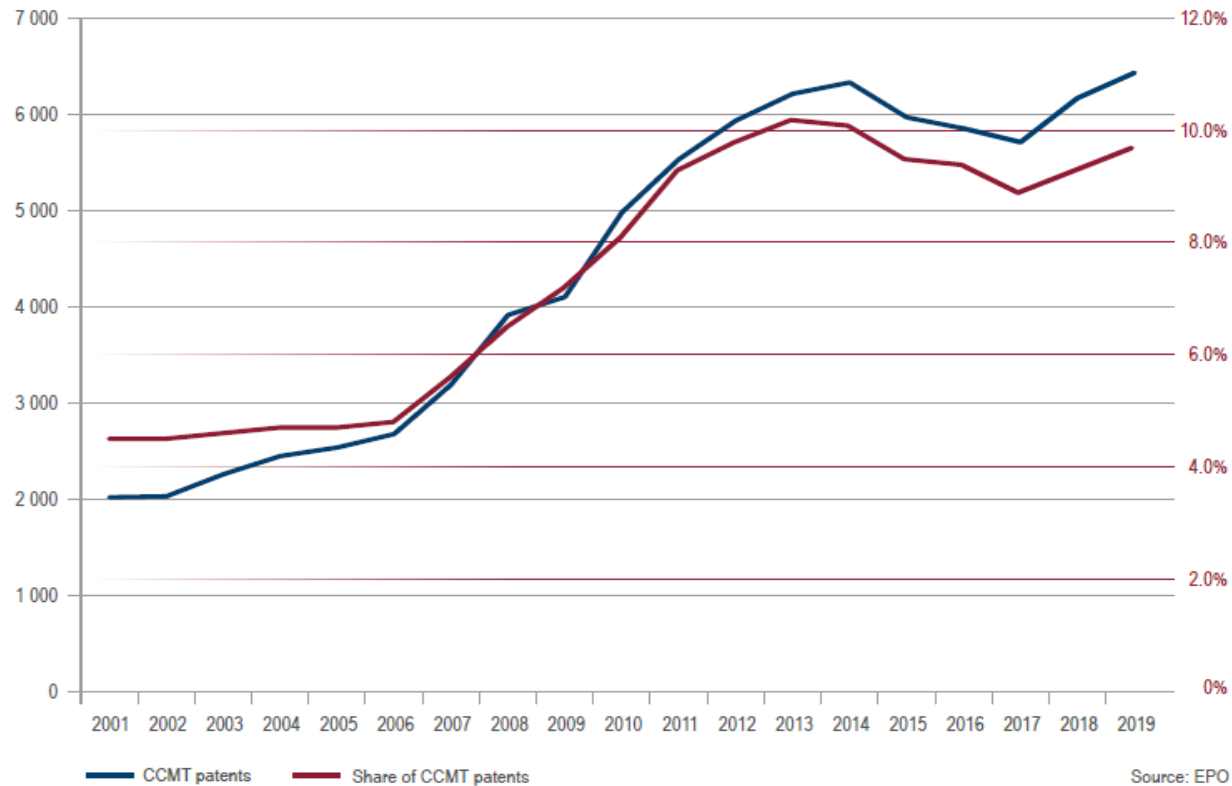# Green EUTM study – 2023 update

AL-Invest Verde Virtual Seminar
26 September 2024

Nathan Wajsman, Chief Economist, EUIPO

IPR support green innovation

Traditional measure: patents in relevant technologies

Figure 4:
Number and share of CCMT patent applications filed by EU
applicants at the EPO between 2001 and 2019

CCMT patents   Share of CCMT patents   Source: EPO

IPR support green innovation

Traditional measure: patents in relevant technologies

The EPO's Y02/Y04S tagging scheme for CCMT-related* patent documents

Y02B   CCMTs relating to buildings

Y02C   Greenhouse gas capture and storage

Y02D   Energy use reduction in ICT

Y02E   Energy generation, storage and distribution

Y02P   CCMTs in production

Y02T   CCMTs relating to transportation

Y02W   CCMTs in waste and wastewater treatment

Y04S   Smart grids

Climate Change Mitigating Technologies

Trade marks can also be an indicator of green innovation

…so we decided to look at EUTMs in the relevant product categories:

- Energy production
- Transportation
- Energy conservation
- Reuse/recycling
- Pollution control
- Waste management
- Agriculture
- Environmental awareness
- Climate change

Purpose of the study

To examine the Goods & Services descriptions in all EUTM filings since 1996 to determine their relation to the **protection of the environment and sustainability** in line with the EU Green Deal

Data used

- EUIPO register: more than 80 million terms in almost 2.2 million CTM/EUTM applications

- Harmonised Database: 86,000 terms (that have already been accepted by all IP offices in the EU)
  - 61,000 unique terms (Main) and 25,000 synonyms

Methodology and definitions

Two main elements:

- **Inventory of Harmonised Green terms**
  - 904 terms classified in 9 groups and 35 categories
- **Green Classifier**
  - Algorithm that infers which terms in any TM are green and assigns them to one of the categories

A "Green EUTM" contains at least one green term in its G&S description

Methodology: Green expressions

A set of green expressions was defined to find and classify the green terms in EUTMs.
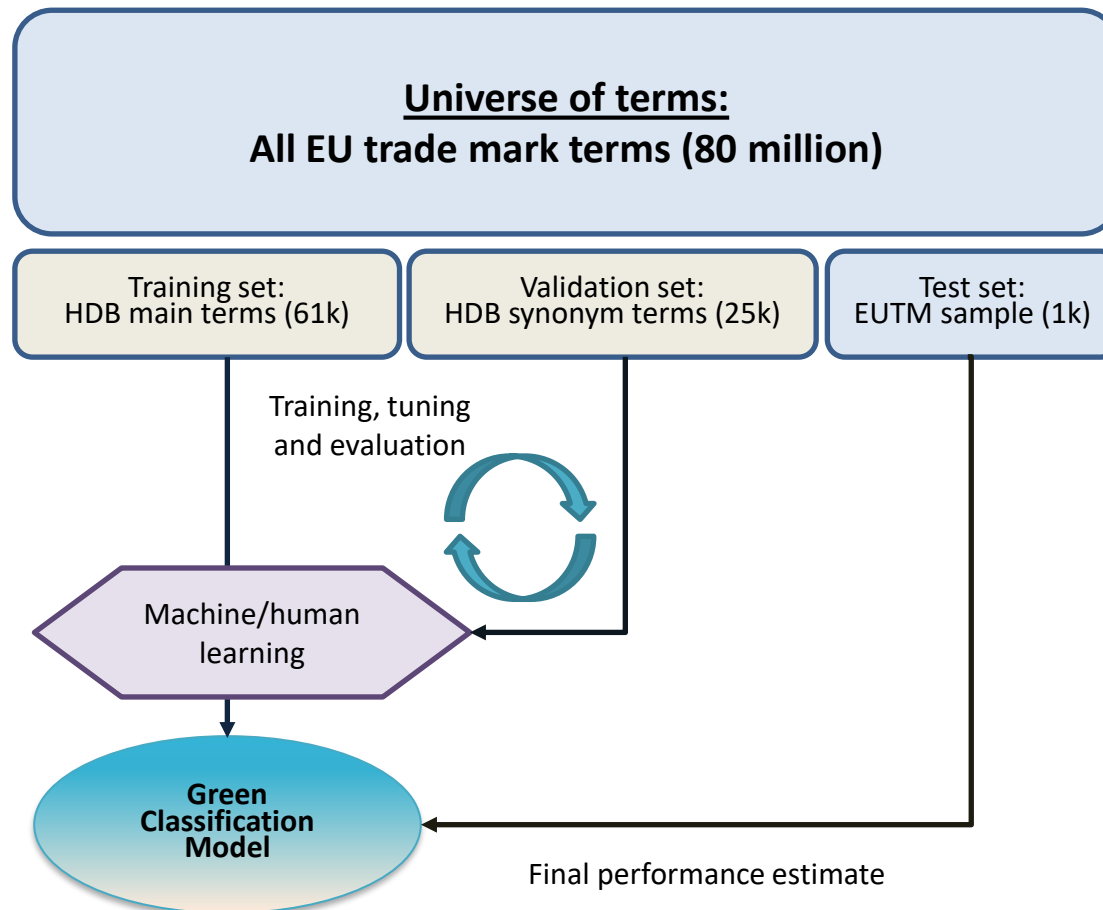
Examples:

Green expression	Category	Group
+photovoltaic	Solar energy	Energy production
+solar +heating	Solar energy	Energy production
+wind.energy	Wind energy	Energy production
+wind +turbine	Wind energy	Energy production
+electric.car –washer	Electric car	Transportation
+carbon +monitor –10	Carbon monitor	Climate change

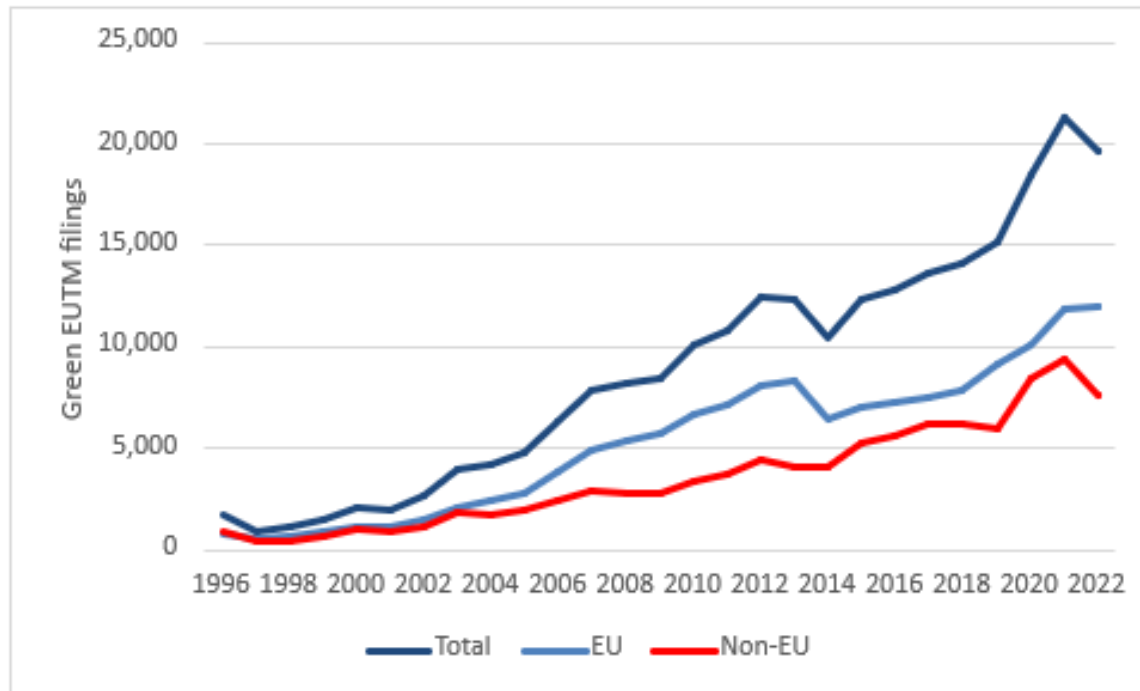This term is "green" except if it is in Class 10 (medical instruments)

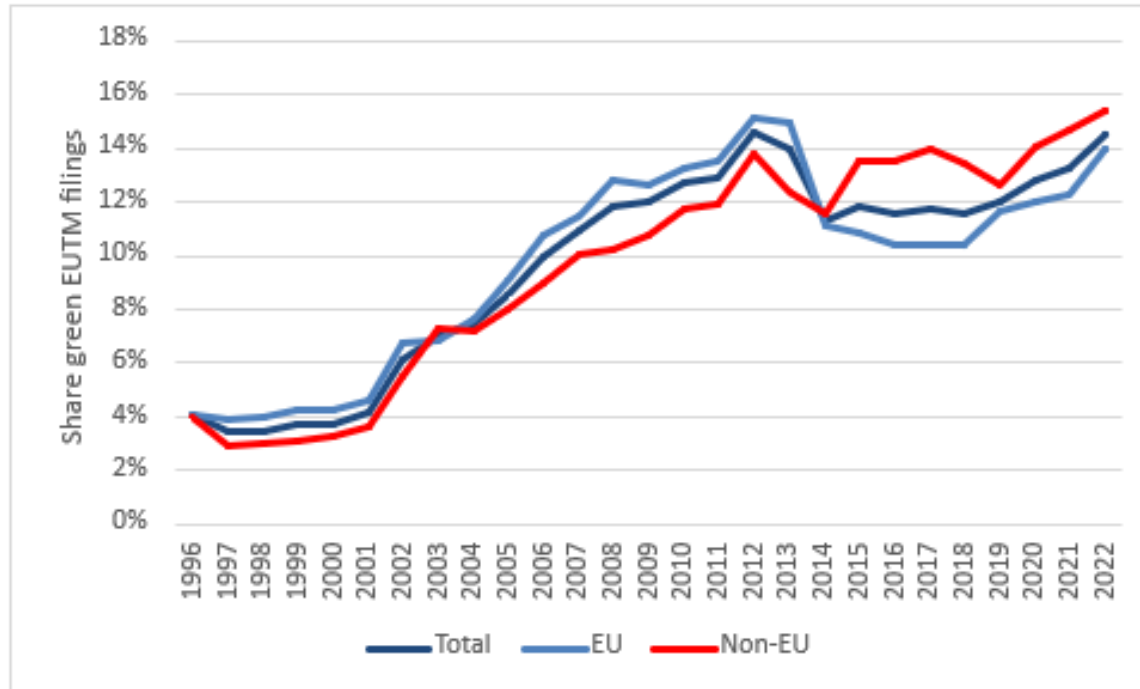# Development of the algorithm to identify Green EUTMs
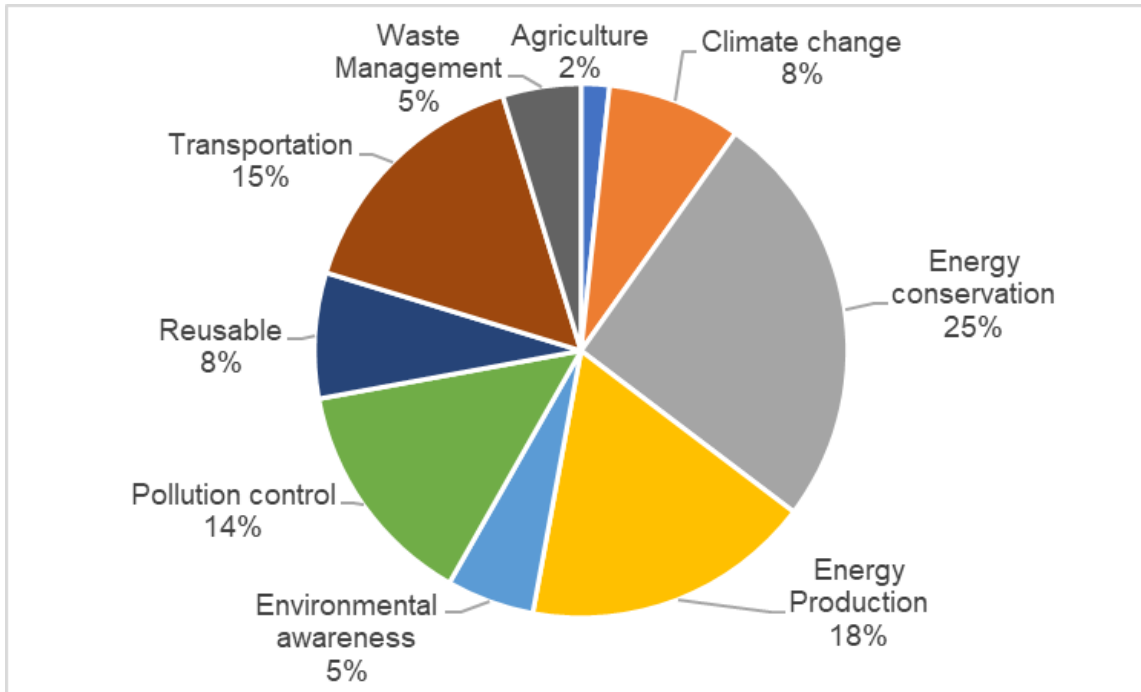
Machine-supported learning

Universe of terms:
All EU trade mark terms (80 million)

Training set:	Validation set:	Test set:
HDB main terms (61k)	HDB synonym terms (25k)	EUTM sample (1k)

Training, tuning
and evaluation

Machine/human
learning

Green Classification Model

Final performance estimate

Green EUTM filings, 1996-2022

Share of green EUTM filings, 1996-2022

Green terms by main product group, 2022

Waste Management 5%
Agriculture 2%
Climate change 8%
Transportation 15%
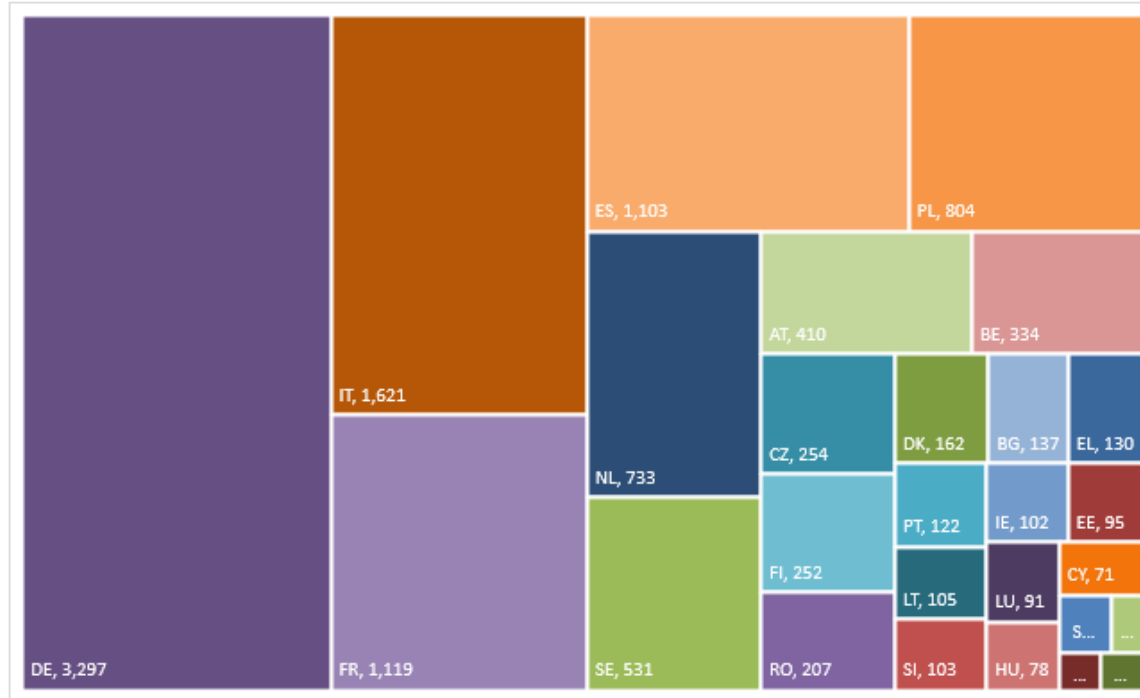Energy conservation 25%
Reusable 8%
Pollution control 14%
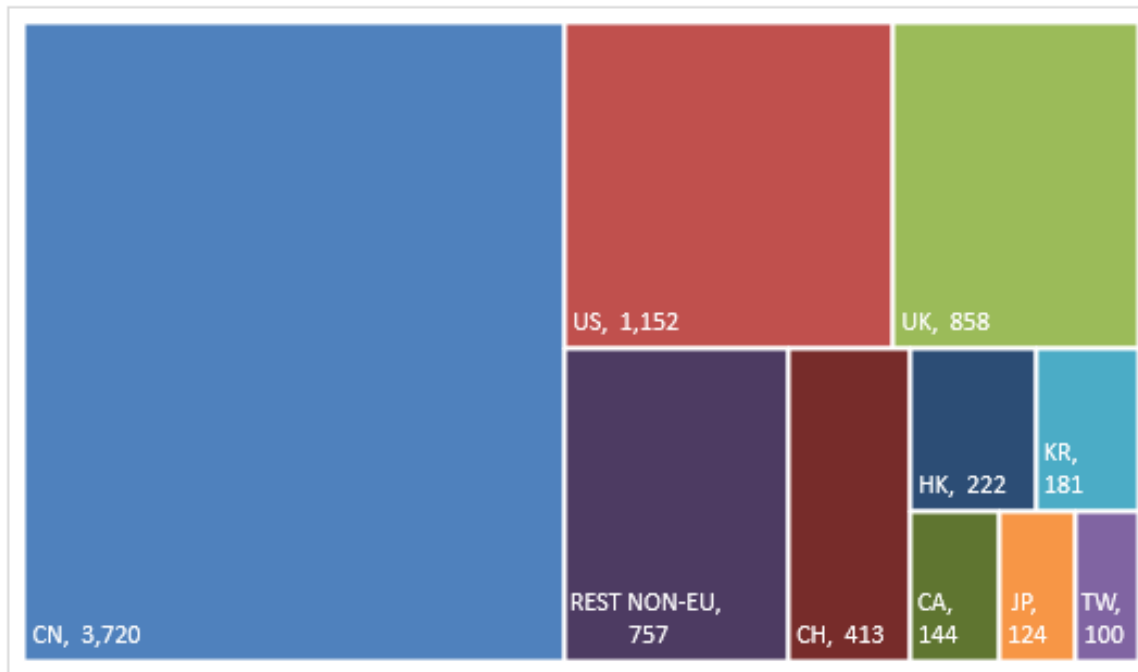Environmental awareness 5%
Energy Production 18%

Energy conservation
Energy production
Environmental awareness
Pollution control
Reusable
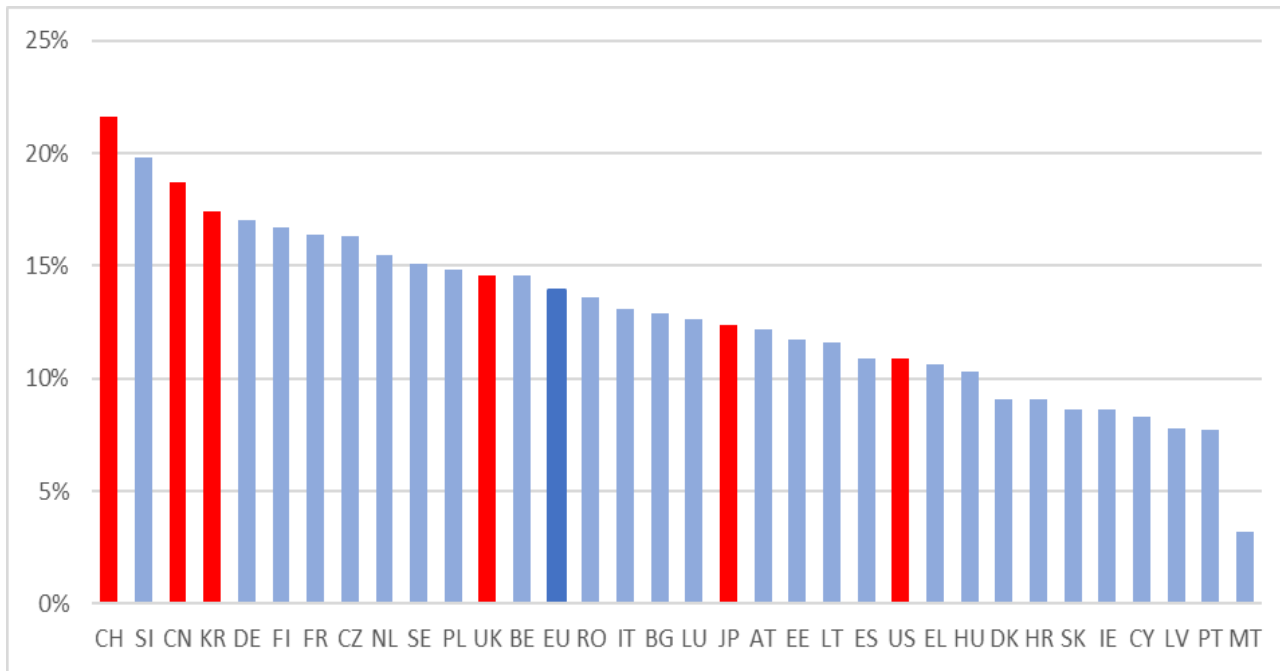Transportation
Waste management
Agriculture
Climate change

Green EUTM filings by EU member states, 2022

Green EUTM filings by non-EU countries, 2022

CN, 3,720

US, 1,152

UK, 858

REST NON-EU, 757

CH, 413

HK, 222

KR, 181

CA, 144

JP, 124

TW, 100

Share of green EUTMs in filings from selected countries, 2022

The full study is here. An executive summary in Portuguese is also available.

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Thank you