DMR Ref No- 2089

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STATEMENT OF WORK

Between

Unilever U.K.Central Resources Ltd, 100 VE, Victoria Embankment, London

& Ernst & Young LLP for project ML enabled Demand Forecasting

Further to the Engagement Agreement dated **1st Oct 2022**, in connection with Ernst & Young LLP ("we" or "EY") performing professional services for Unilever U.K. Central Resources Ltd be read in conjunction with Unilever Purchasing Agreement or Master Service Agreement CW67101 executed on 1st May 2019 Between Unilever U.K. Central Resources Ltd and Supplier name Ernst & Young LLP. All the terms and condition in the above stated Unilever Purchasing Agreement are applicable to this Statement of Work.

1)   Statement of Work:
Client: Unilever U.K.Central Resources Ltd. **Project Name**: ML enabled Demand Forecasting **Statement Of Work**: Oct 2022 - April 2023 **MSA/UPA Agreement#**: CW67101 **Project Code:** ML enabled Demand Forecasting

2)   Project Background:
Unilever has undertaken a program to improve the Demand Planning KPIs by leveraging Machine Learning capabilities. EY will be delivering ML models for **A**ustria. This is done under the program **Integrated Operations Program.**

3)   Overall Project Scope:
Our experienced professional would assist Unilever in managing complex programs across Supply chain projects that focus on delivering value, reducing risk and enhancing enterprise alignment. This is an extension the Austria's FEU iOps implementation. **4) Geographical Scope:** Geographical scope includes Austria. EY resources will work out of Unilever Bangalore locations to reap benefits of cost advantages. **5) Functional Scope:** Project will be led by Global I&A Director and the Global solution Delivery project team consisting of UniOps Enterprise Solutions and EY will be formed. **6) Systems Scope:** This is a non-system consulting project and hence involves not system changes as part of its scope. We will not identify, address or correct any errors or defects in your computer systems, other devices or components thereof ("Systems"), whether or not due to imprecise or ambiguous entry, storage, interpretation or processing or reporting of data. We will not be responsible for any defect or problem arising out of or related to data processing in any Systems.

1. **Technical Scope:** EY Team will work with Unilever Team to achieve the project's overall objective. Following are the activities EY needs to perform to extend the project.

   1. ACTPM UAT testing for migration from tactical to GDS source
   2. ACTPM GDS source adoption post UAT testing
   3. Baseline acceptance from the planners & modelling changes
   4. Help the MLOPS team in the handover of the BAU activities.

   1. The Fixed Cost proposal is at **Market – Category** level where Market means single country or a group of countries where Demand Forecasting process and data is homogenous, and category is equivalent to Small Category as per Unilever standards. Example of small category would be Dressings, Hair Care, Tea, Skin Care etc.

   2. Model will be developed at GTIN – Plan Account - Week Level for **Dressings, Other Foods, Fabric Cleaning, Fabric Enhancer, Scratch Cooking, Deodorant and Fragrance, Skin Cleansing, Skin Care, Tea, Hair Care, Ice Cream, Oral Care, Snacking, Home and Hygiene and Food Solutions**

   3. All models will be developed using Python and on Azure Databricks. The Azure platform will be utilized to build automated pipelines using Data Factory while the code repository shall be managed in internal Git.

   4. Baseline will be generated by univariate models and Long-Term Forecast will be an extrapolation of the same for 104 Weeks

   5. All internal data for building ML models should be at the same granularity level as Sales Data and should be in the same format for past and future period. This data needs to be provided by Unilever
      a. **Mandatory Data**
         1. Promotional Data with Attributes (Type of Promotion, Discount)
         2. Dispatch Data
         3. Phasing Out Cases
         4. Promotion Distribution
      b. **Optional Data**
         1. Media Spend
         2. Price Information

   6. Model at Category level will be considered successful if:
      - KPIs will be calculated at GTIN-APG level and GTIN level and compared against Demand planner's numbers.
      - ML release list with criteria on volume and count: Volume Coverage > 85% of In-scope GTIN-Planning Level Combination and > 80% of the number of GTINsLead Allocation from EY for every Market will be done in collaboration with Unilever.
      - Forecast Accuracy ~3% improvement w.r.t current process at Lag4 (Weekly Level) for ML release list.
      - Forecast Bias ~1% improvement w.r.t current process al Lag4 (Monthly level) for ML release list.

      Note: All KPIs will be measured for 16 Weeks Backtesting Period and will exclude Covid-19 effected weeks

7. Lead Allocation from EY for every Market will be done in collaboration with Unilever.
8. External data like weather, holiday calendar needs to be provided by Unilever. If procurement is to be done by EY then the same will be charged as per actuals

9. Change in Promotion plan between 4 weeks to actual promotion date will be excluded in the calculation of forward forecasting KPI

10. Replacement, Re-Alignment and Re-Distribution information needs to be provided by Unilever 1 Weeks in advance if available

11. Shift from Model Enhancement Stage to BAU to be confirmed by Unilever & EY

12. BAU will commence post sign-off from Unilever

13. Delay in receiving data for modelling 1-week post commencement of business discussion will be charged on T&M basis (0.5 * Number of Categories at 200 EUR/day)
14. Delay in Sign-off post achievement of KPIs will be charged on T&M basis (0.5 * Number of Categories at 200 EUR/day)

7) Project Approach: Our team of experienced data scientist professionals would assist Unilever in managing and executing activities with respect to analysis of sustainability data, from Unilever Bangalore, utilizing standard templates and tools for review, analysis and presentation of the results.

8) Project Timelines: Unless otherwise agreed, and subject to the terms and conditions, this SOW is valid till 30th April 2023.

9) Project Team Structure: EY project team will consist of Lead Data Scientists along with a team of data scientist (number of resources deployed/country will be done by EY)

10) Overall Project Assumptions: The calculation of fees is based on the scope defined in the project for Gen4a models

11) Fees are defined assuming India based resources only. Additional costs will be incurred for deploying EY resources from other regions/EY local resources for respective countries.

12) Travel expenses will be billed as per actual and as per the standard contract between Unilever and EY

Team Scope, Deliverables and Key Activities

14) Team Scope:

This document covers the roles and responsibilities of the following teams, within the scope of the overall team structure.

a) EY Responsibilities

Deliverable	Type of Deliverable	Completion date
ACTPM Activities	Weekly meeting /presentation/excel	On going
Governance and communications	Weekly meeting /presentation/excel	On going
Project status report	Weekly meeting /presentation/excel	On going

b) Unilever Responsibilities

Unilever Enterprise solution managers will monitor quality standards of deliverables, evaluate whether objectives are being met and enable project management. EY is fully accountable for deliverables mentioned in part (a) above. Unilever manager will be responsible to escalate or take corrective actions where other 3rd parties are involved.

c) Specific additional terms and conditions

Our work will not be performed in accordance with generally accepted auditing, review, or other assurance standards in [the relevant jurisdiction] and accordingly does not express any form of assurance. None of the Services or any Reports will constitute any legal opinion or advice. We will not conduct a review to detect fraud or illegal acts.

Notwithstanding anything to the contrary in the Agreement or this SOW, we do not assume any responsibility for any third-party products, programs or services, their performance or compliance with your specifications or otherwise.

We have based any comments or recommendations as to the functional or technical capabilities of any products in use or being considered by you solely on information provided by your vendors, directly or through you. We are not responsible for the completeness or accuracy of any such information or for confirming any of it.

15) Deliverables

Deliverable	Type of Deliverable	Completion Date
ACTPM Activities	Weekly meeting /presentation/excel	Yet to start
Governance and communications	Weekly meeting /presentation/excel	Yet to start
Project status report	Weekly meeting /presentation/excel	Yet to start

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EY
Building a better
working world

Commercial Impact			

16) Commercial details :-

Sr. No	Months	Fixed Cost (EUR)	Total Fees (EUR)
1	Oct'22-Apr'23	40,000	40,000
		Total	**40,000**

- ✓ **IMP Note*** :- The above rates are exclusive of Taxes &any applicable statutory charges
  - :- Mandatory to attach procurement approved quotation
  - : - Travel expenses need to approve by IT (stakeholder & Procurement).

17) Other Overheads:

	UOM	Rate (Per Month)	Total Amount
Laptop Charges			Nil
Data Card			Nil
Mobile charges			Nil

The services will be performed onsite at the premises of UIPL

18) The Commercials:

The overall commercial for the project would be **40,000** EUR /-. The billing would be done in a onetime manner approved by respective shareholders.

No further discounts shall be applicable, including under the terms of Section 5 (Project Discounts) of Schedule 6 (Commercial Schedule) of the MSA.UK

Approval By: U.K. CENTRAL RESOURCES LTD	**Supplier name: EY LLP**
Approval By: DocuSigned by: *Meenakshi Chhajer* 2DF09A8789D34BD...	Approval By:
Name: Nigel Issa	Name: Ajay Kamat
Title: Director	Title: Partner
Date:	Date: