Technical Solution Design Preparation Document

## Tools and Products considered while creating Technical Solution Design (Task 2 – Activity 1)

* SAP S/4HANA: RenewAgra's case study mentions EnvoData already using SAP S/4HANA. Leveraging S/4HANA for CropCo and TransCrop will ensure a standardized platform for integrated data management, reporting, and analytics.
* SAP Analytics Cloud (SAC): SAC will provide a unified and mobile-accessible analytics platform, aligning with RenewAgra's goal of offering a fully mobile data access and analytics solution. It supports real-time data monitoring, visualization, and collaboration.
* SAP Fiori UX: Fiori UX ensures a consistent and user-friendly interface for all SAP applications across RenewAgra's businesses. This aligns with the goal of a single transparent user interface for internal services and external customers.
* SAP Solution Manager (ALM Tool): As an Application Lifecycle Management (ALM) tool, SAP Solution Manager will be essential for managing the end-to-end lifecycle of SAP applications, including documentation, testing, and change management. This tool aligns with RenewAgra's need for a structured approach to project and operations needs.

## Solution used for similar customers (Task 2 - Activity 2)

* Customer Success Story Documentation: RenewAgra Explore
* a) Customer Information:
  + Customer Name: RenewAgra
  + Industry: Agriculture (Crops - cereals and sugar)
  + Business Units: CropCo, TransCrop, EnvoData
  + Geographic Presence: US, Brazil, Mexico, Germany, India
  + Operational Overview:
    - CropCo: Crop services, processing, and distribution.
    - TransCrop: Transportation, commodities trading, fleet management.
    - EnvoData: Data services using advanced monitoring technology.
* b) Pain Points:
  + Divergent Data Management Systems:
    - Different businesses using varied data management systems.
    - Inefficient data sharing, lack of a single source of truth.
  + Data Fragmentation in CropCo:
    - Reliance on outdated systems and Excel in CropCo.
    - Slow processes, lack of real-time insights.
  + Interconnectedness Challenges in TransCrop:
    - Coordination challenges with distant employees.
    - Inefficient planning, communication gaps.
  + Security Concerns in EnvoData:
    - Need for secure data sharing for CropCo engineers.
    - Risk of data breaches and unauthorized access.
* c) Technical Solution:
  + SAP S/4HANA Integration:
    - Implement SAP S/4HANA across CropCo and TransCrop.
    - Standardized platform for data management and reporting.
  + SAP Fiori UX for User Interface:
    - Deploy SAP Fiori UX for a consistent and user-friendly interface.
    - Ensure a single transparent user interface for all businesses.
  + SAP Analytics Cloud for Analytics:
    - Integrate SAP Analytics Cloud for real-time analytics.
    - Provide a fully mobile data access and analytics platform.
  + SAP Solution Manager for ALM:
    - Utilize SAP Solution Manager for Application Lifecycle Management.
    - Streamline project documentation, testing, and change management.
* d) How the Technical Solution Addressed Pain Points:
  + Data Integration with S/4HANA:
    - Integrated data management, addressing the challenge of divergent systems.
    - Streamlined processes, improved data accuracy.
  + Fiori UX for User Adoption:
    - Unified user interface for CropCo, TransCrop, and EnvoData.
    - Enhanced user experience, increased efficiency.
  + SAC for Real-time Analytics:
    - Real-time data access and analytics platform.
    - Improved decision-making, enhanced transparency.
  + Solution Manager for Structured ALM:
    - Structured ALM processes for efficient project and operations management.
    - Improved documentation, testing, and change management.

## Identifying and closing gaps (Task 2 - Activity 3)

|  |  |
| --- | --- |
| Gap | Solution |
| Limited Real-time Data Monitoring for TransCrop in Brazil and India | Implement GPS tracking systems in TransCrop trucks across Brazil and India. Leverage SAP Fiori UX for real-time monitoring, enhancing visibility into transportation activities. |
| Lack of Data Transformation Capabilities for EnvoData's Soil Analysis | Introduce SAP EIM (Enterprise Information Management) or SDI (Smart Data Integration) to provide real-time data transformation capabilities. This enables EnvoData to efficiently manage and transform soil analysis data in the online database. |
| Inconsistent Data Modeling Tools Across RenewAgra | Replace SAP BW on HANA with SAP BW/4HANA for an up-to-date data modeling environment. Ensure the new system supports advanced features like XSA (XS Advanced) and AFL (Application Functional Library) for predictive analytics, machine learning, and predictive maintenance. |

## Incorporate Customer Feedback (Task 3 - Activity 1)

* Regulatory and Compliance Requirements for RenewAgra:
* Data Privacy Regulations: RenewAgra operates in multiple countries, including Germany and India, which have stringent data privacy regulations. The use of advanced data services by EnvoData, involving satellite imagery and real-time meteorology, necessitates compliance with local and international data protection laws.
* Agricultural Practices Regulations: Given that RenewAgra is a crop-focused company dealing with cereals and sugar, there could be specific agricultural practices regulations that vary across countries. Compliance with these regulations is crucial, especially for CropCo, as they are involved in planting, processing, and distributing foodstuffs. Adherence to environmental and ethical standards in agricultural practices is likely a regulatory requirement.

## Incorporate Customer Feedback (Task 3 - Activity 2)

* Description

SAP HANA-based Analytics for SAP Master Data Governance is not available within SAP S/4HANA, on-premise edition 1511 and higher.

* Required and Recommended Action(s)

The following check is only required in case that you have SAP Master Data Governance in active usage. In this case please check if also SAP HANA-based Analytics for SAP Master Data Governance is set up and running.

## Incorporate Customer Feedback (Task 3 - Activity 3)

* SAP Fiori UX: Fiori UX ensures a consistent and user-friendly interface for all SAP applications across RenewAgra's businesses. This aligns with the goal of a single transparent user interface for internal services and external customers.
* SAP Analytics Cloud (SAC): SAC will provide a unified and mobile-accessible analytics platform, aligning with RenewAgra's goal of offering a fully mobile data access and analytics solution. It supports real-time data monitoring, visualization, and collaboration.

## Managing customer requirements and feedback (Task 4 – Activity 1)

* Project Documentation:SAP Solution Manager provides comprehensive project documentation capabilities, allowing the IT team to document customer requirements, project plans, and implementation details in a structured and centralized manner. This includes functionalities for creating and managing project documents, business process documentation, and test cases. During the Technical Solution Design phase, the team can utilize Solution Manager to store and organize technical specifications, design documents, and any other relevant artifacts. This ensures that all project-related documentation is easily accessible, version-controlled, and aligned with the customer's requirements.
* Requirements Management: Solution Manager offers features for requirements management, enabling the team to define, document, and track customer requirements throughout the project lifecycle. This includes functionalities for gathering and analyzing business requirements, linking them to specific development objects, and maintaining traceability. During the Technical Solution Design phase, the team can use Solution Manager to capture detailed technical requirements, associate them with corresponding business requirements, and provide a clear traceability matrix. This ensures that the proposed technical solutions align with the initial customer requirements, facilitating transparency and accountability in the design process.

## Preparing for the Q-Gate (Task 5 - Activity 1)

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| --- | --- | --- | --- | --- |
| To do | Is it Feasible? | Does it meet the Timeline? | What are the Constraints? | MoSCoW Prioritization |
| Implement SAP S/4HANA Integration for CropCo and TransCrop | Yes | Yes | Availability of skilled resources, system compatibility, and potential data migration challenges. | Must-Have |
| Develop Fiori UX for a unified interface across businesses | Yes | Yes | Alignment with existing systems, user training requirements. | Should-Have |
| Enhance Data Transformation for EnvoData's Soil Analysis | Yes | Partially | Data quality and format issues, potential impact on ongoing projects. | Could-Have |