ITIL implementation in Kernel

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About the company

Kernel is the world's leading and Ukraine's largest producer and exporter of sunflower oil, and a major supplier of agricultural products from the Black Sea region to international markets. Kernel exports its products to more than 80 countries of the world. The company accounts for about 8% of the world production of sunflower oil. Processing capacity - 3 million tons of sunflower seeds per year, which produces 1.3 million tons of sunflower oil and about 1.2 million tons of sunflower meal. The company's storage capacity is 2.8 million tones, with a land bank of 530,000 ha. Currently, the company workforce consists of 14 thousand people.
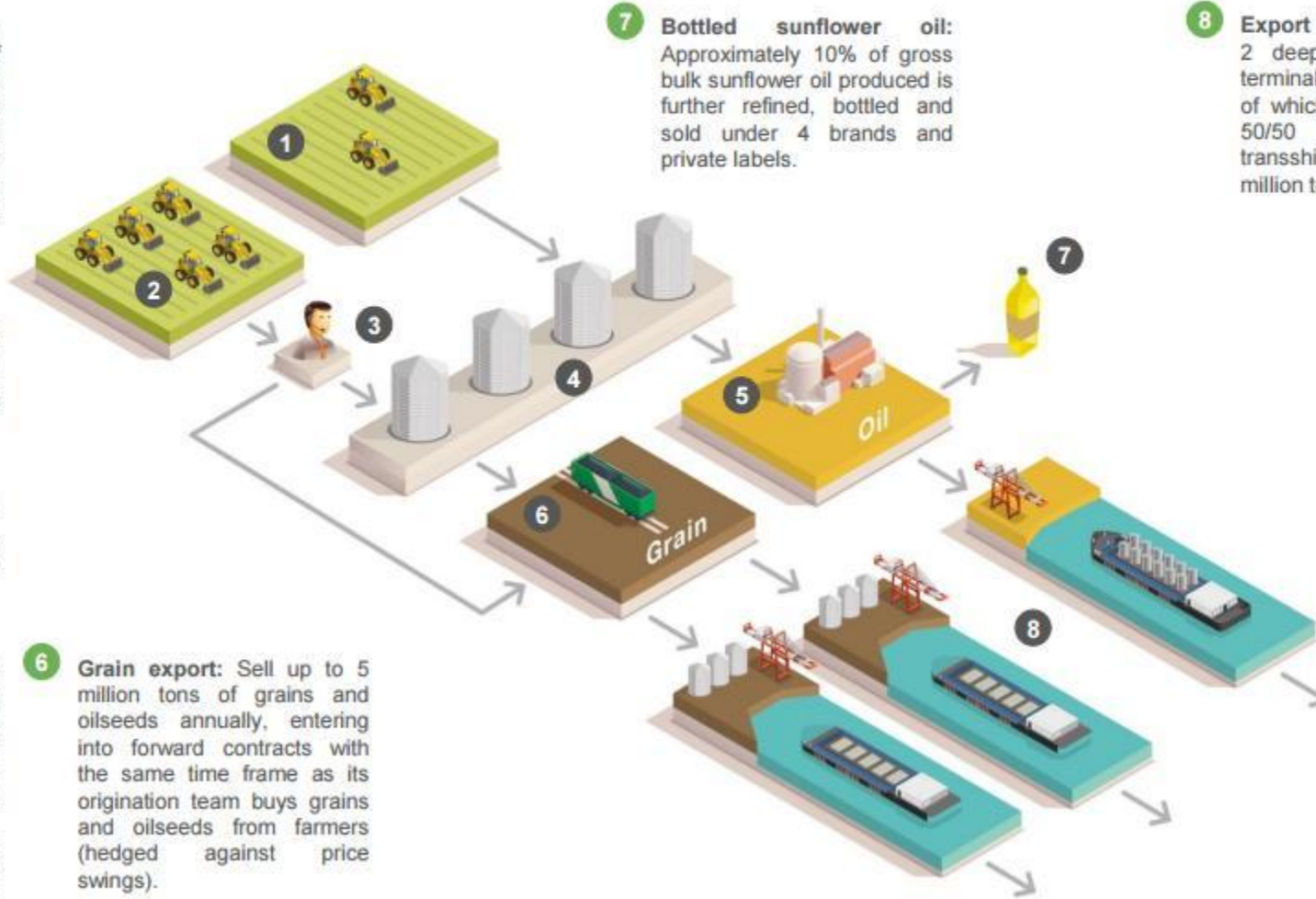
Kernel business model

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2 Own farming/3rd party farmers: 385,000 ha of farmland in Ukraine. Kernel produces up to 2. million tons of grains and oilseeds that go through its other business divisions. 3rd party farmers supply the remaining 5.3 million tons.

3 Procurement: Annual procurement of ca. 2.5 million tons of sunflower seeds and ca. 3.0 million tons of grains from ca. 5,000 farmers.

4 Silo storage: Operates 2.4 million tons of grain silo storage capacity across different regions of Ukraine.

5 Oilseed processing: Kernel's 9 oilseed crushing plants[(1)] have a processing capacity of 3.5 million tons of sunflower seeds crushed per year. 1,000kg of sunflower oil seeds yields, on average, 440kg of sunflower oil, 390kg of sunflower meal and 160kg of sunseed husk.

6 Grain export: Sell up to 5 million tons of grains and oilseeds annually, entering into forward contracts with the same time frame as its origination team buys grains and oilseeds from farmers (hedged against price swings).

7 Bottled sunflower oil: Approximately 10% of gross bulk sunflower oil produced is further refined, bottled and sold under 4 brands and private labels.

8 Export terminals: Operates 2 deep-water grain export terminals on Black Sea (one of which is owned through 50/50 JV) – annual transshipment capacity of 6 million tons.

Analyzing the organization based on ITIL life cycle

- Service Strategy

- Service Design

- Service Transition

- Service Operation

- Continual Service Improvement

Service Strategy

• Strategic System Management: The principles of this management ensure the transition from quantitative to qualitative growth. Company's strategy and objectives cascade at the operational level, and through their implementation are transformed into the daily work of managers who thrive in a culture of internal entrepreneurship and continuous improvement.

• Financial Management: Calculate all costs and profits taking into account the previous cropping years.

• Risk Management: Evaluate all possible risks which could happen due each stage of work, considering the experience, the situation on the market, in the world economy and the country.

Service Design

• Service Portfolio Management: Define all the possible services which organization can provide, analyze them considering resources, capabilities, and time. Replace unprofitable services with those that will be profitable.

• Service Level Management: Define, document, agree, monitor, measure, report, and review the level of IT services that are being provided. Improve services which are more important at the time.

• Contract Management: Renew contracts, sign new contracts with new clients, or terminate a contract because the other party has not fulfilled its obligations.

• Organizational change and communications: People – a key value at Kernel. Kernel develop the latest technologies, integrate them into the future, and introduce the main trends in Agribusiness.

Service Transition

• Knowledge Management: Thanks to the right strategy, dynamic growth and sound personnel policy, every employee of the Company has the opportunity to gain new knowledge, and realize individual ambitions and potential. Company pay attention to the training and development of managers, specialists and youth with high potential.

• Change Management: Improve the quality of their assets, build modern technological enterprises, improve processes and educate people. Focus on world practices and adapt the best of them, taking into account political and market specifics, changes in the environment and the unique features of the Company.

• Service Release and Deployment Management: Planning, scheduling, and controlling of the build, testing, and deployment of releases and delivering the new functionality which is required by the businesses.

Service Operation

• Request fulfillment: Managing the life cycle of all service requests. Service requests are managed throughout their life cycle from initial request to fulfillment using separate request fulfillment records/tables to record and track their status.

• Access management: ensures that only users who are authenticated and devices that are authorized and compliant with security policies can use the service.

• Incident Management: Restore unexpectedly degraded or disrupted services to users as quickly as possible, in order to minimize business impact.

• Problem management: Involves root cause analysis to determine and resolve the underlying causes of incidents, and proactive activities to detect and prevent future problems/incidents. This also includes the creation of known error records, that document root causes and workarounds to allow quicker diagnosis, and Resolution should further incidents occur.

Continual Service Improvement

Kernel is a long-term perspective company, therefore, its sustainable development is one of the main principles of their business. They create comfortable and safe working conditions for our employees, provide them with a wide range of opportunities for training and professional development. At all production stages, company minimize the use of energy resources, carefully cultivate the land and control the quality of the products. Collaborating with local communities and lessors, and annually implement hundreds of large-scale social projects in the operations regions.

Identifying the problem

According to market experts, agricultural companies often lose or underutilize profit opportunities, because of number of problems, such as human error, weather conditions, and many others. One of the most common "leaks" where profits leak out is theft.

Identifying the goal and Solution

• Achieve sustainable yield growth and minimize operational costs and human errors.

• Create an intelligent information system of production management integrated with all internal and external IT-services for effective planning, implementation and monitoring of field works, full control of the implementation of all technological operations, as well as change management.

• Ensure the maximum use of the potential of each field and each piece of equipment.

Planned solution: Implement software for managing an agricultural enterprise, a system of agricultural business through automation and resource management.

Expected Result

After creating and implementing this software company could create an operational plan of action and monitor its implementation, monitor the movement of machinery and fuel use, analyze field maps, predict crop yields, keep records of the land bank, and monitor the decisions made by agronomists by analyzing the data.

Main Roles and Responsibilities

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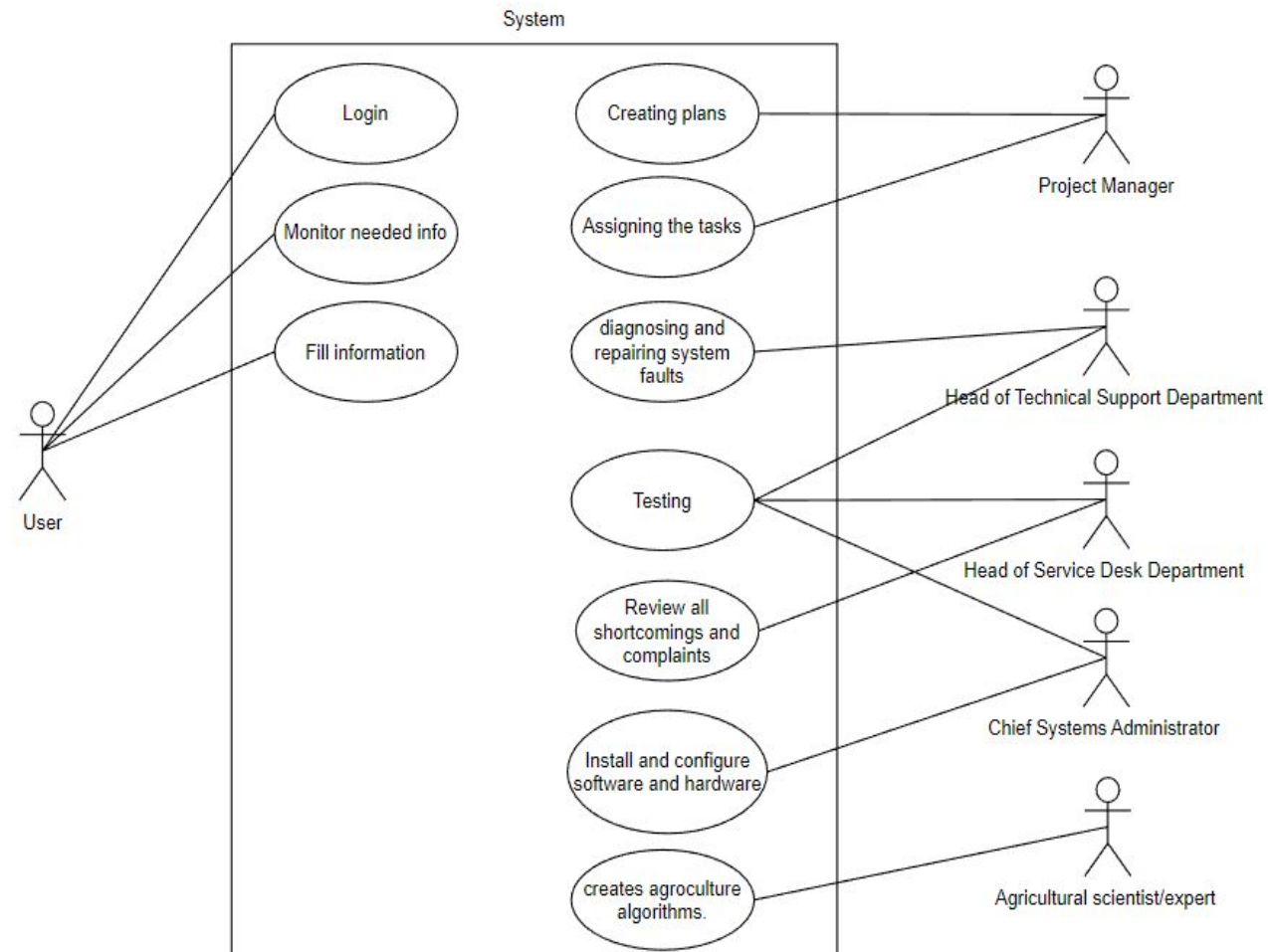
Kernel in comparison with Sutter Health

- Improving culture and mindset

- Working with partners

- Strong Executives

Conclusion and Future Work

Because of military actions in Ukraine, many of the company's properties were destroyed, so one of the best options at the moment is to attract new investors, switch to hydroponic agriculture, and grow sunflowers in a safe area in larger quantities and smaller area.