



Aalto University
School of Electrical
Engineering

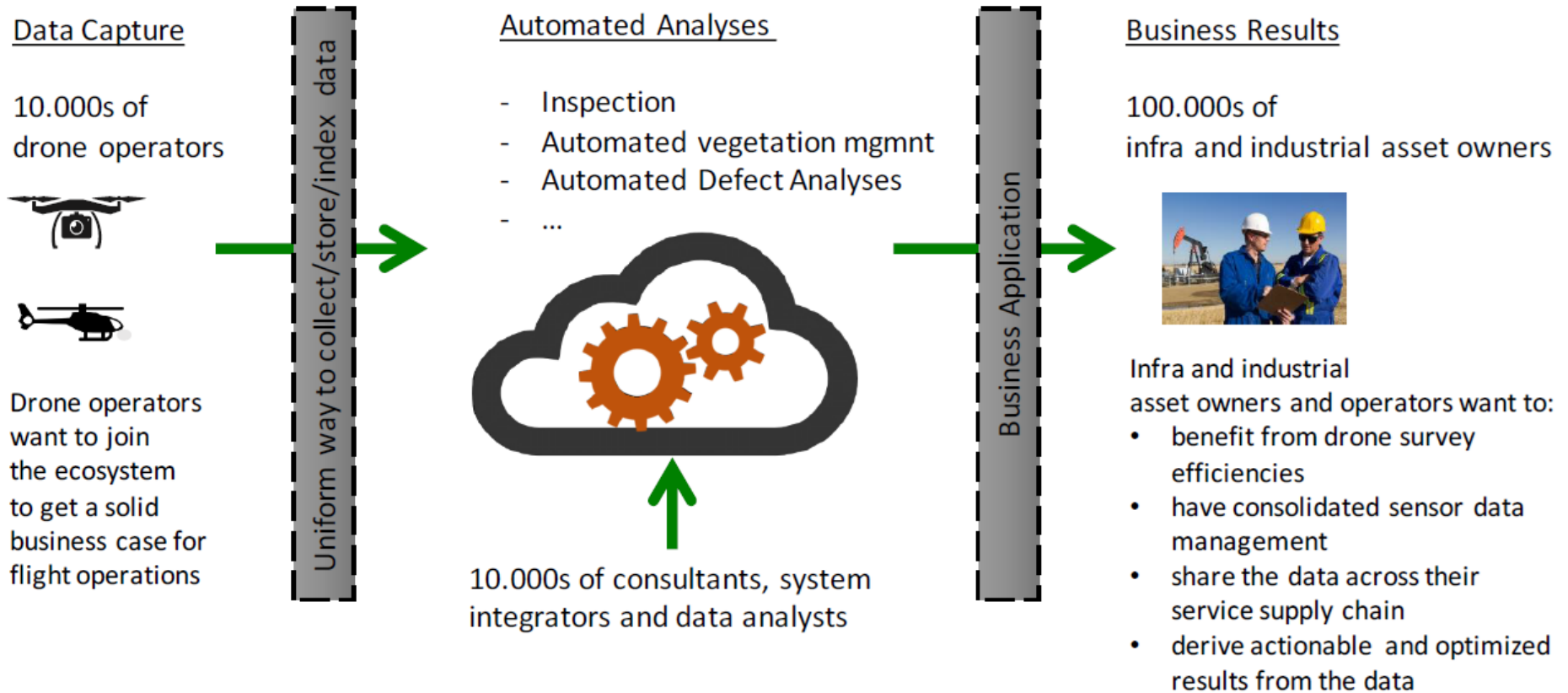
S-38.3046 Value Network Design for Internet

Case: Sharper Shape

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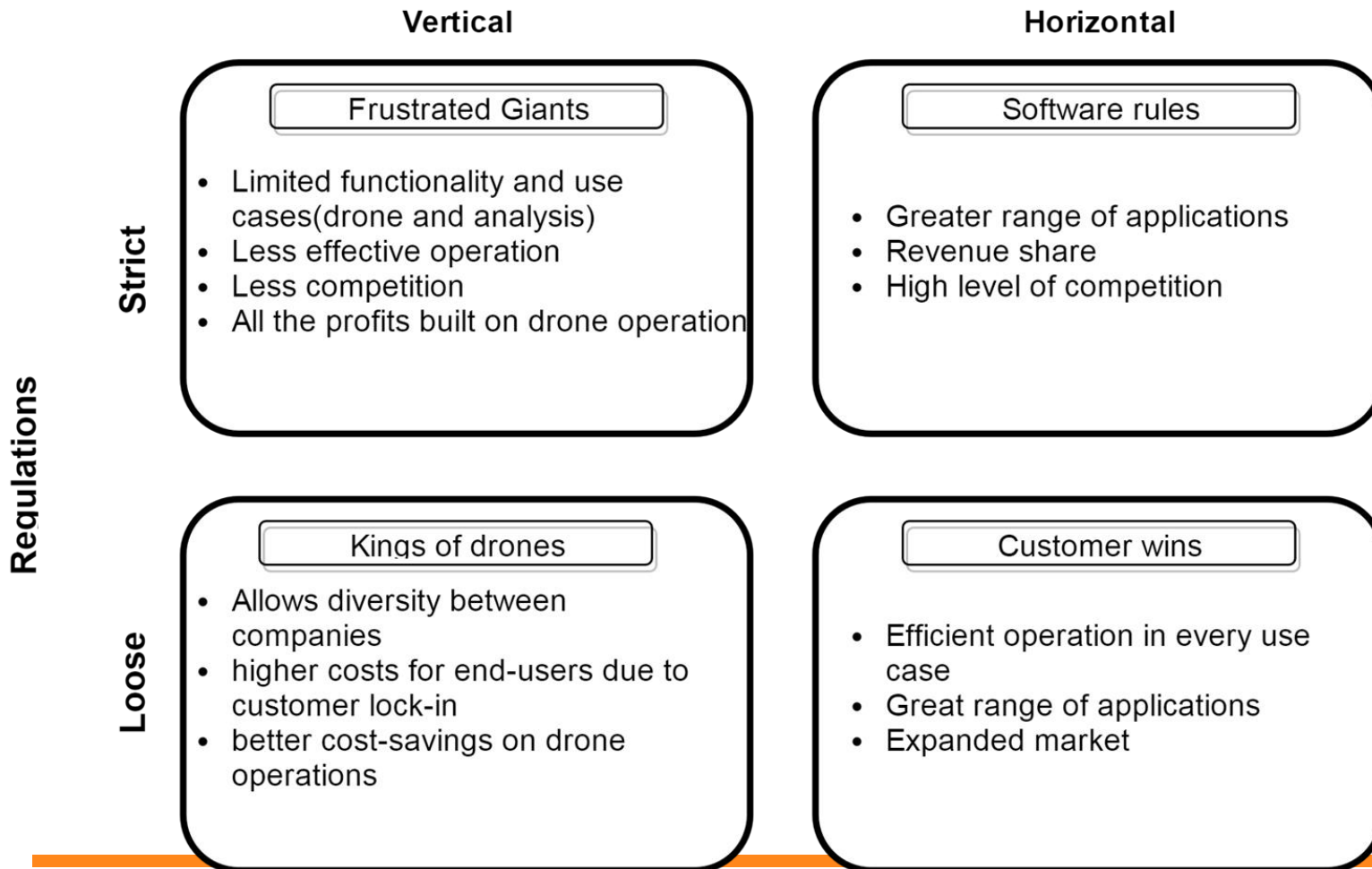
March 8, 2016

Case company business view

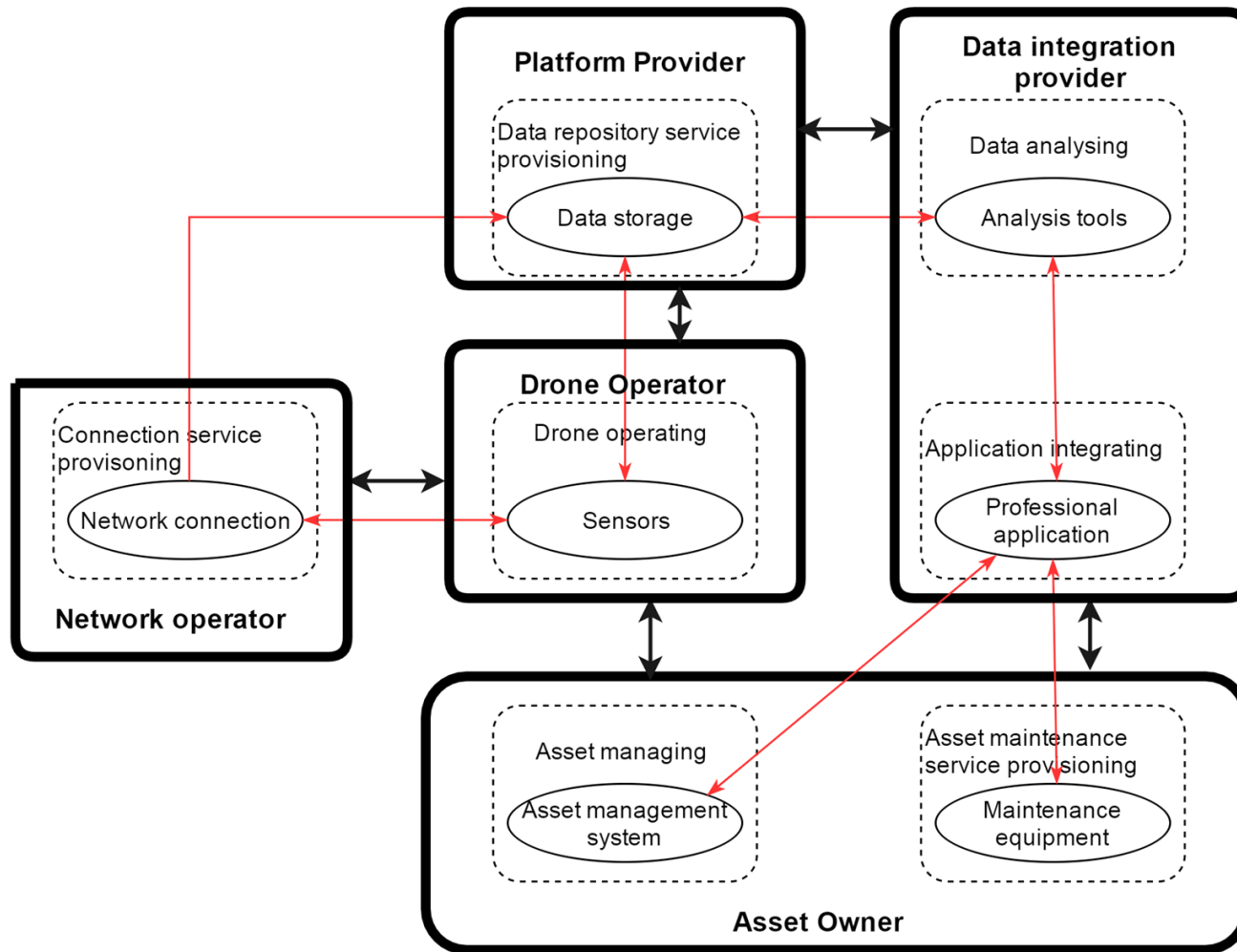


Scenario planning

Market structure



Platform driven VNC



STOF Method - Quick Scan

- **Service Domain**
- **Technology Domain**
- **Organizational Domain**
- **Finance Domain**

Service Domain

- **Service concept :**
 - Providing a platform for drone based inspection and data analysis services
- **Added value :**
 - Maintenance costs lowered for the asset owners
 - Gives drone operators and related application providers access to the industrial market
 - Enable better asset management

Technology Domain

- **Core technologies :**

- Unmanned Aerial System (UAS) including ground control, sensors and UAV
- Data repository
- Analysis software applications
- APIs to connect the different parts together
- Mobile networks

Technology Domain (cont.)

- **Possibilities:**

- Auto-pilot
- Real-time data analysis

- **Limitations :**

- Lack in standardisation in technical interfaces
- Market is still immature

Organization Domain

- **Organizations involved :**
 - Drone operators
 - Hardware providers (sensors and drones)
 - Asset owners
 - Application developers
 - Regulators and standardization organizations
- **Organizational arrangements**
 - Third party licensing

Finance Domain

- **Costs and revenues :**

- Costs of data capturing is reduced from 350 USD to 100 USD/mile (around 1B USD savings per year)
- Costs of data analysing is 350 USD/mile (2.6B USD market)
- This includes only power lines inspection
- Including all utilities and industrial infrastructure, this amount could reach 10B USD

Finance Domain (cont.)

- **Costs and revenues :**

- Drone operators and application developers pay licensing fees to access the system (or use revenue sharing)
- Costs of maintaining the platform
- Marketing costs/investments
- The end-user pay one drone operator and one application provider to get its service (one may not be visible)

Finance Domain (cont.)

- **Risks :**
 - Not enough 3rd parties interested
 - Competing platforms
 - No lock in for partners
 - Immature market
 - Standardization is hard to set up

Any Questions ?