FROM SELLING STRUCTURES TO SELLING PURPOSE

SNC LAVALIN'S DIGITAL TRANSFORMATION

Bart van Campenhout
Jassu Hermans
Asiya Suleimanova
Julie Wijmans
Warm welcome to the board of SNC Lavalin! We are Nyenrode Business Consultancy here to advise you on a digital transformation strategy to build towards sustainable growth.
AGENDA

- Define
  - Key challenges
  - Key question

- Analyze
  - SWOT

- Alternatives
  - Options and recommendations

- Implementation
  - Finance and Risks

- Conclusion
How can SNC Lavalin use digitization for future growth?
KEY CHALLENGES

1. World population growth causes need for buildings and infrastructure
2. Low productivity in construction
3. Low adoption of technology in construction
4. Current earnings model is being challenged today (transition costs reducing to 0)
5. Customers reuse their own data, causing less need for SNC Lavalin services
TODAY’S RECOMMENDATION: AFTER SALES SERVICE MODEL

- Change earnings model to activity-based after sales model
  - Invest in sensoring and data analytics to digitize the finished project
  - Increase after-sales income by assisting the customer in optimising their activity
  - Advise on maintenance by using data analytics
## SWOT

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversified portfolio</td>
<td>Dependability on several major customers</td>
<td>Growing population and urbanization</td>
<td>Low level of technology adoption in construction</td>
</tr>
<tr>
<td>Presence in the entire value chain</td>
<td>Risk averse share holders</td>
<td>Customers demand digital solutions</td>
<td>Construction productivity is deteriorating</td>
</tr>
<tr>
<td>Reach backlog of pending projects</td>
<td>Bureaucracy</td>
<td>Growth of applicable technology in the market</td>
<td>Current earnings model is being challenged</td>
</tr>
<tr>
<td>EDMP has grew by 14% in less than 1 year</td>
<td>Currently transitioning the organizational culture</td>
<td>Nobody has challenged the execution process yet</td>
<td>Customer can better reuse their own data</td>
</tr>
<tr>
<td></td>
<td>No clear digital strategy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EDMP - Enterprise Data Management Platform
SNC LAVALIN VISION

- **Short-term goals: 2016-2018**
  - Expand services offerings
  - Expand regional breath, infrastructure & nuclear expertise
  - Deliver on operational excellence
  - Deliver a client-centric organization
  - Deliver a performance-driven culture

- **Long term goals: from 2018 on**
  - Reposition the company on a path of strong profitable growth
  - Balance portfolio across sectors
  - Tackle digitization wave
  - Bring premium returns to shareholders
  - Remain leading position in the construction industry
SNC: RIDING THE DIGITIZATION WAVE

- Customer-centric approach
- Remain diversified approach
- Bring premium returns to shareholders
COMPREHENSIVE END-TO-END SERVICE OFFERING

Clean Power  Infrastructure  Mining & Metallurgy  Nuclear  Oil & Gas  Engineering, Design & Project Management
COMPLETE VALUE CHAIN OFFERING

- Capital
- Consulting & Advisory
- Design & engineering
- Digital & AI
- Procurement
- Construction & Project Management
- Operations & Maintenance
- Sustaining Capital
- Sustaining Capital
REVENUE GROWTH

2017 Revenues
- EDPM: 24%
- Infrastructure: 18%
- Oil & Gas: 37%
- Others: 21%

2018 Revenues (9 months)
- EDPM: 23%
- Infrastructure: 31%
- Oil & Gas: 25%
- Others: 21%

- EDPM, Infrastructure, Oil & Gas are bringing 79% of revenues
- EDPM has grown from 18% to 32% in revenue in less than 1 year
- Infrastructure remains bringing steady 21% in revenue
- Oil & Gas has experienced a slight decline of 11%
INDUSTRY TRENDS

Trend #1
• Growth of population, especially in the urban area ahead

Trend #2
• Productivity in construction has been deteriorating in the past 5 years

Trend #3
• Construction scores very low on adopting new technology

How can SNC Lavalin accommodate these trends? And is digitization a valid solution?
ALTERNATIVES

1. STAFFING
2. AFTER SALES SERVICES
3. CUTTING OUT NICHES
Open platform to connect throughout the entire value chain. Connect engineers, materials, services. Connect what is necessary, when it is necessary.

<table>
<thead>
<tr>
<th>+</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile, flexible, scalable</td>
<td>Could become our own cannibal competition</td>
</tr>
<tr>
<td>Jumps in on need for flexibility and efficiency</td>
<td>Easily copied by competition</td>
</tr>
<tr>
<td>JIT management implementable and high level of predictability</td>
<td>High risk due to shift in core business</td>
</tr>
</tbody>
</table>
ALTERNATIVE #2: AFTER SALES SERVICES

No longer selling tangible assets, but changing the earnings model to selling running hours.

<table>
<thead>
<tr>
<th>+</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>New revenue stream</td>
<td>Only applicable to project-based industries</td>
</tr>
<tr>
<td>Possibility to gather big data and sell data to new parties</td>
<td>Resistance from clients regarding privacy and data sharing</td>
</tr>
<tr>
<td>Increase efficiency</td>
<td></td>
</tr>
<tr>
<td>Decrease needed investment for clients</td>
<td></td>
</tr>
</tbody>
</table>
**ALTERNATIVE #3: CUTTING OUT NICHE MARKETS**

Focus on the three leading industries: Oil and Gas, Infrastructure, EDPM (79% of revenue’s worth). Sell off other departments.

<table>
<thead>
<tr>
<th>+</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on expertise in three biggest departments</td>
<td>No longer a diversified company</td>
</tr>
<tr>
<td>Able to invest more in R&amp;D, digitization and technology</td>
<td>Less authority entity in market due to limited service offering</td>
</tr>
<tr>
<td>Lower costs by selling off departments</td>
<td>No longer presence throughout the entire value chain</td>
</tr>
</tbody>
</table>
DECISION METRICS

Digital strategy and 2020 vision focused:

- Lower costs
- Increase efficiency
- Increase productivity
- Building towards SNC DNA → authority
- Customer centricity
# DECISION MATRIX

<table>
<thead>
<tr>
<th></th>
<th>STAFFING</th>
<th>AFTER SERVICE</th>
<th>NICHE MARKETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower costs</td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Yellow" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td>Increase efficiency</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td>Increase productivity</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
</tr>
<tr>
<td>SNC DNA</td>
<td><img src="#" alt="Red" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
</tr>
<tr>
<td>Customer centricity</td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Green" /></td>
<td><img src="#" alt="Red" /></td>
</tr>
</tbody>
</table>
RECOMMENDATION: ALTERNATIVE 2

Revenue

- 75% Reimbursable contracts
- 25% Fixed-price contracts
RECOMMENDATION:
FROM SELLING STRUCTURES TO SELLING PURPOSES

SCN Lavalin should become a data driven customer centric company with a closed cradle to cradle resource stream. Selling the purpose behind the structures.

Why?

- Counter reimbursable & engineering service (get paid by purpose and aggregated data)
- Contracts by creating additional revenues
- Tackle growing population (limited resources)
- Tackle urbanization (more efficient planning)
- Be able to offer more customer centric solutions (offer complete unburdening or advice)
- Use data to become more efficient (data analytics as new revenue)
- Use aggregated data to advice on potential inefficiencies
RECOMMENDATION

The transaction form a building company to a service company

Oil and Gas  
Infrastructure  
Engineering design project management  
Nuclear  
Clean power  
Mining & Metallurgy  
Thermal Power  
Pump hours  
Passing cars/running hours  
Engineer solutions/hours  
Running hours  
Running hours  
Running hours
GATHER DATA ON EACH STEP OF THE VALUE CHAIN

<table>
<thead>
<tr>
<th>Capital</th>
<th>Consulting &amp; advisory</th>
<th>Digital &amp; AI</th>
<th>Design &amp; Engineering</th>
<th>Procurement</th>
<th>Construction &amp; project management</th>
<th>Operations &amp; maintenance</th>
<th>Sustaining capital</th>
</tr>
</thead>
</table>

Potential data points:
- Available liquidity
- Construction efficiency
- Flaws in the supply chain
- Success of technological solutions
- Endurance of the construction
- Weak parts
- Project time line
- Life span

Aggregated data analytics
IMPLEMENTATION ONTO O&G CASE

1) Investments
   - Data scientist personnel
   - Software for data analytics
   - Sensoring to implement on O&G projects

2) Finish old earnings model backlog projects and start selling new earnings model
   - Data-driven projects come at a premium which we cover by after-sales earnings increase
   - Customers receive advise on maintenance efficiency and forecasts on improving runtime efficiency

3) Stay in-house at customers for longer and improve loyalty
   - More efficiently build, engineer and manage based on known data
   - Use data scientists as a high-margin source of new revenues
## FINANCIALS

<table>
<thead>
<tr>
<th>Costs (x 1M USD)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel hired</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Software</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equipment</td>
<td>100</td>
<td>45</td>
<td>90</td>
<td>135</td>
<td>180</td>
</tr>
<tr>
<td>Total added costs</td>
<td>180</td>
<td>125</td>
<td>120</td>
<td>165</td>
<td>210</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income (x 1M USD)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old earnings model</td>
<td>3000</td>
<td>2900</td>
<td>2700</td>
<td>2600</td>
<td>2500</td>
</tr>
<tr>
<td>New earnings model</td>
<td>0</td>
<td>450</td>
<td>900</td>
<td>1350</td>
<td>1800</td>
</tr>
<tr>
<td>Total revenues</td>
<td>3000</td>
<td>3350</td>
<td>3600</td>
<td>3950</td>
<td>4300</td>
</tr>
<tr>
<td>Revenue growth</td>
<td>12%</td>
<td>7%</td>
<td>10%</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

| EBIT Growth          | 170  | 125  | 230  | 185  |      |

### Assumptions
- Add 15% margin on top due to after-sales personal hiring at 150k/person initial soft & hardware expenses for sensors at 10% of sales rate, initially 50m 20k people working in the O&G industry
Google comes in and provides a business intelligence solution to our client using our sensors
   - Though, it is only a data partner and does have the needed experience to make the data useful

Ownership of the building is risky, what if our client defaults?
   - Our capital divisions have extensive experience to mitigate ownership risks and allocate capital efficiently
CONCLUSION

How can SNC Lavalin use digitization for future growth?

- Longer exposure to the customer by after-sales earnings model
- Data-driven improvement of value proposal
- Increasing our main revenue source; reimbursables