AGENDA

1. FACTS & PROBLEMS
2. ANALYSIS
3. ALTERNATIVES & RECOMMENDATIONS
4. IMPLEMENTATION
5. CONCLUSION
FACTS & PROBLEMS

World Population Growth – Need for Buildings & Infrastructure
+2.4 B Growth in the next 30 years

CONSTRUCTION:

Productivity

Adoption of Technology
- Level of Digitalization: Second to Last
- R&D Investment: Last
- IT Spending: Second to Last
SWOT: IMPLEMENTATION OF DIGITAL TECHNOLOGY

**STRENGTHS**
- Up to date
- Competitive
- Efficient process

**WEAKNESS**
- First Big Investment
- Lack of R&D

**OPPORTUNITIES**
- Join Ventures

**THREATS**
- Competition
- Digital era
HOW WILL DIGITAL TRANSFORMATION AFFECT OUR BUSINESS?
Demand more digital technology (risk-averse)

Look for cheaper alternatives (no intermediates), yet prioritize quality

Knowledge accessibility (prior self and external projects)
Loyal employees

- Stage 1: Reluctant to change (old practices & job cut speculation)
- Stage 2: Satisfaction (productivity, tech millennials)

Risk

- Millennials & Gen Z tend to be less loyal
- Look for mobility and new challenges… outside?
PROBLEMS

MAIN:
How to achieve digital GROWTH?

SECONDARY:
How digital transformation affect our business?
How should our design engineering business change its business model?
How do we fund digital investments?
What should we tell investors?
HOW SHOULD WE CHANGE THE BUSINESS MODEL?
ALTERNATIVES

Partnerships / Join Ventures

Equipment Rental

Smart Buildings
ALTERNATIVES

DRIVES GROWTH
- Partnerships / Join Ventures
  - Drives sales
- Equipment Rental
  - Clients portfolio
- Smart Buildings
  - Clients loyalty

FINANCIAL
- Non capital Intensive
- Long Run Benefit
- Capital Intensive

OPERATIONAL
- Facilitates operations
- Availability/ Damage
- Increase of processes

HUMAN RESOURCES
- Possible tension
- Risk of Loss
- Increase of Personnel

FACTS & PROBLEMS > ANALYSIS > ALTERNATIVES & RECOMMENDATIONS > IMPLEMENTATION > CONCLUSION
## ANALYSIS OF ALTERNATIVES

<table>
<thead>
<tr>
<th></th>
<th>Partnerships</th>
<th>Rental</th>
<th>Smart Buildings</th>
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<tbody>
<tr>
<td>Drives Growth</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
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<tr>
<td>Financial</td>
<td>High</td>
<td>Medium</td>
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</tr>
<tr>
<td>Operational</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>

- **High**
- **Medium**
- **Low**
SMART BUSINESS

**Drives Growth**
- Clients Stickiness
- Integral Business
- New clients
- Reputation

**Operational**
- Increase of process
- More efficient process
- Less Error

**Financial**
- Investment needed
- High substitution Cost

**HR**
- Increase of personnel
- More trainings
ACTION PLAN
SOFTWARE DEVELOPMENT

**Client needs**
- Engineering
- Sales
- Surveys

**Define Software**
- Add value to the client
- Helps O & M
- Difficult to change

**Hire provider**
- Expertise
- Exclusivity

**Key Terms**
- Engineering
- Sales
- Surveys
- Add value to the client
- Helps O & M
- Difficult to change
- Expertise
- Exclusivity
FREE TRIAL

• Target existing clients

• Low operations and maintenance

• Software data collection

• Client feedback
VERSION 2.0

- Fix software bugs
- New and better features
- Second test (existing projects)
- Promotion: hotels, business complexes, hospitals
GO BIG

Year 1
- Facts & Problems
- Analysis

Year 2
- Alternatives & Recommendations

Year 3
- Implementation

Year 4
- Go Big
  - Become profitable
  - Promote proven results
  - Prepare for major adjustment
  - Sales on big buildings

Year 5
- CONCLUSION
GO BROAD

Start developing alternatives

• Construction & Maintenance
  - Bridges
  - Airports
  - Train Stations
  - Stadiums

• Big data analysis
  - Users habits and preferences
  - Open businesses
  - Intelligent space planning
# RISK & MITIGATION

<table>
<thead>
<tr>
<th>RISK</th>
<th>MITIGATION</th>
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</thead>
<tbody>
<tr>
<td>1 Delivery &amp; Satisfaction</td>
<td>Previous analysis &amp; Agreements w Suppliers</td>
</tr>
<tr>
<td>2 Not interested clients</td>
<td>Showroom creation for live experience</td>
</tr>
<tr>
<td>3 Obsolete technology, Delivery &amp; Satisfaction</td>
<td>Look for different suppliers, Previous analysis &amp; Agreements</td>
</tr>
<tr>
<td>4 Not interested, finding new Troubles</td>
<td>Simulations</td>
</tr>
<tr>
<td>5 Finding New troubles, finding clients</td>
<td>Simulation, Offer service in the company's other Business units</td>
</tr>
</tbody>
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FINANCIAL ANALYSIS

• Sources of funds
  – Operating cash flows
    • Engineering, Design and Project Management (EDPM)
      – Revenue = $3.12 Billions
      – EBIT Margin = 11% ($343 Millions)
  – Dividends from existing concessions and Capital Investments
    • 15 Investments in 5 countries = $191 Millions
• **Uses of Funds**
  – Digital Investments
  – Dividend Payments (30% payout ratio)
  – Share Buy Back
    • Undervalued (P/E multiple x5.1 P/E vs x12.5 peers)
PROBLEMS

RECOMMENDATION

IMPACT