Applying Project Management Techniques to Low-Volume Manufacturing Operations

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21 Professional Certifications:

Lived and Coached in Six Countries:
Project Management is my Passion

Coaching and Volunteer Work

- Review Committee member for the 6th Edition PMBOK
- Item exam writer for the CAPM
- Annual contributor to the speaker panel of Scrum Alliance
- Learning Objective writer for the RMP exam
- Volunteer for the PMI institute 5 x year
- Agile leadership coach for numerous global companies
Project Management is my Passion

HQ in Munich (investment capital)
Assembly Facility Wroclaw Poland
Founded 9 years ago
More than 10,000 vehicles on the market
Fully designed and assembled in Europe

Top Speed: 90 kph
Range: 100 km
Charging: 2 hrs
We are about the PEOPLE

250 employees/shift in assembly facility
22M EUR annual turnover
Capital Investment 50M EUR in past 3 years
72% of market share in Europe ( # of vehicle )
200% revenue growth in last 2 years
( 400% revenue growth in 2017 )
No robots.....yet
GOVECS Key Pillars

Technology
- Intelligent components
- Networked systems
- Modularity
- Functional integration
- Microsystems

People
- Human machine Interface
- Adaptive technology
- Intelligent interactivity
- Intuitive operations

Qualification
- Training the new generation
- Employee qualification
- Learning systems
- Technician interaction
What is Project Management
Project Management:
Is a structured way of GETTING WORK DONE EFFICIENTLY

What is Project Management?
The primary challenge is to achieve all of the project goals and objectives while honoring the preconceived constraints. Typical constraints are scope, time, and cost. The secondary—and more ambitious—challenge is to optimize the allocation and integrate the inputs necessary to meet pre-defined objectives.

Globally Recognised Associations

Project Management Institute
IPMA
PRINCE2
Australian Institute of Project Management
Project Management Techniques applied in Manufacturing

IRIS

Iterative Project Management Tools
Risk Management Mindset
Integration of Continuous Leadership
Stakeholder Management Techniques
Iterative Project Management Tools
Create a Backlog of Work

Backlog Pro Tips

- One idea or task per card or sticky note.
- It should represent no more than a few days of real work to do.
- Don’t organise them until all are on the board.
- Put as much information on each card.
- Make the visible to all stakeholders.
- They should be relatable.

www.leanproduction.com
Kanban Tips and Tools

- Maintain WIP to be as low as possible
- Quicker quality feedback loops
- Fewer errors due to quick feedback
- Over production and waste is minimised
- Visual way to track and show work / canceled work
Iterative Project Management Tools

Communicate Frequently

- Speak everyday about what can be done next
- Prototype every idea, before committing
- In person meetings
- Understand constraints
- Meet in a visible area
Risk Management Mindset
Risk Management Mindset

- 11.4 Perform Quantitative Risk Analysis

Project Risk Management

- 11.1 Plan Risk Management
- 11.2 Identify Risks
- 11.3 Perform Qualitative Analysis
- 11.4 Perform Quantitative Analysis
- 11.5 Plan Risk Responses
- 11.6 Implement Risk Responses
- 11.7 Monitor Risks
Project Risk Management

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- 11.2 Identify Risks
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- 11.4 Perform Quantitative Risks
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Risk Register

Risk registers are usually used to house a complete list of risks that a business may face in one place.

On the surface it makes sense to itemise all these various threats but is the big picture really visible to us?

Such systems introduce lots of problems if we aren’t aware of them in the first place.

Risk Register Quandaries

- Most risk registers only look at the downside of risk, not the upside from risk taking.
- Risk registers have a tendency to use traffic light tagging to highlight concerns. While this improves report readability, it results in a very limited view of risk.
- When risks are represented numerically, only one number is often shown. Is this the maximum risk or perhaps just the expected loss?
- The correlation or clustering between risk events is generally lost in a risk register.
Risk is NOT NEGATIVE. It only is when it is outside of your TOLERANCE.

Tolerance and Threshold Explained

Risk Management Mindset

- Appetite
- Threshold Level
- Tolerance Level
- Contingency Reserve
- Actual Work Cost
Application to Manufacturing Projects:

Project Risk Management: Includes the process of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project.
Integration of Continuous Leadership
Integration of Continuous Leadership

Environment can be in Manufacturing

- Continual feedback loops
- Self-organized ‘after-hours’ events
- Monthly anonymous employee satisfaction surveys. Publicized results
- Bi-monthly off-site self-sponsored leadership meetings
- Every new employee works on the assembly line for 1 week
Integration of Continuous Leadership

Integration Stand Ups

- No longer than 15 min
- Must be visual
- Visual and purposeful eye contact

3 Key Questions to Ask

- Why are we here?
- What are we doing about it today?
- What will we do about it in the future?
Easily manage open and collaborative goals or OKRs

All goals are shared with team members. I personally send my results to the site.

In place at GOVECS for more than 2 years

Surveys show that employee satisfaction has doubled from both managers and direct reports. Not easy from start.

Employees can provide feedback to managers in 360 degree reviews
Continuous Performance Feedback

NO MORE year end REVIEWS
Continuous Use of Unfiltered Tools

Basecamp

Slack
Integration of Continuous Leadership
Stakeholder Management Tools
Project Stakeholder Management

- 13.1 Identify Stakeholders
- 13.2 Plan Stakeholder Engagement
- 13.3 Manage Stakeholder Engagement
- 13.4 Monitor Stakeholder Engagement

Stakeholder Management Tools

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Tools &amp; Techniques</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project charter</td>
<td>1. Stakeholder analysis</td>
<td>1. Stakeholder register</td>
</tr>
<tr>
<td>2. Procurement documents</td>
<td>2. Expert judgment</td>
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<td>3. Enterprise environmental</td>
<td>3. Meetings</td>
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<td>4. Organizational process</td>
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<tr>
<td>assets</td>
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</tbody>
</table>

Who’s impacted by this?

Ask A Question

Where?
What if?
When?
Could it?
How?
Why?
Could it?
What?
Would it?
Project Stakeholder Management

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Stakeholder Management Tools

What to do now?
Project Stakeholder Management

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Stakeholder Management Tools

Ask these key questions

1. Have any stakeholders changed positions?
2. Is meeting attendance where it should be?
3. Are status reports being read and understood?
4. Have the output artifacts changed?
5. What is the communication channel to key stakeholders?
6. Any recent changes to the communications plan?
BOOKS
Recommended Readings

- **L. David Marquet**: *Turn the Ship Around!*
- **Daniel Kahneman**: *Thinking, Fast and Slow*
- **Frederic Laloux**: *Reinventing organizations*
- **PMBOK Guide Sixth Edition**
- **Tony Adams**: *Agile Leadership*
- **Simon Sinek**: *Start with Why*
QUESTIONS