Business excellence through Lean Six Sigma (LSS)
What is company looking for from Facilities Management?

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What is JLL looking for?

Business excellence is integral to Future of Work, key in operational excellence, impact in digital, financial and innovation.

**Human Experience**
Enhance user experience through engagement, empowerment and fulfillment.

**Financial Performance**
Manage spending to enable growth and enhance return on investment (ROI).

**Digital Drive**
Harness digitization and rich data to enhance people and enterprise performance.

**Continuous Innovation**
Combine new thinking, solutions and processes to drive value creation and accelerate transformation.

**Operational Excellence**
Optimize enterprise resources and service delivery to increase productivity, mitigate risks and ensure high performance.
What is Lean Six Sigma?

Lean Six Sigma (LSS) = Lean + Six Sigma

**Lean**
- Focuses on eliminating process wastes to improve productivity

**Six Sigma**
- Reduces process variability and defects to improve quality

Lean Six Sigma (LSS)
- A rigorous, disciplined, and data driven business process optimization and problem solving methodology which aims to reduce variability, eliminate non-value added activities (waste) and reduce cost.
- Build up company culture of operational excellence
Why Lean Six Sigma (LSS)?

LSS mission
To facilitate JLL in realizing excellence in delivering it’s key business objectives, focusing on systematically driving sustainable process optimization and continuous improvement.

LSS vision
Lean Six Sigma provides JLL a competitive advantage by achieving

- customer satisfaction improvements,
- cost optimization and
- LSS talent development

throughout APAC by building an organization of people that seeks continuous improvement through the structural use of LSS methodologies in driving business improvement.
LSS provides a set of systematic data-driven approaches for problem solving and continuous improvement, which is DMAIC:

**Define**
- Define the business problem
- Set project targets, scope
- Determine critical process outputs
- Develop high-level project timeline

**Measure**
- Understand current baselines
- Data collection
- Identify gaps
- Establish high level process flow

**Analyze**
- List potential root causes of problem
- Prioritise the root causes to pursue in the Improve step
- Data analysis

**Improve**
- Identify and brainstorm solutions
- Test solutions using Plan-Do-Check-Act cycle
- Create detailed implementation plan
- Deploy improvements

**Control**
- Monitor improvements
- Create a control plan
- Update documents, business process and training records
LSS Focuses

3 enemies of our operations - Waste; Variability and Inflexibility

Reducing inflexibility ("mura") means becoming able to deliver to the client what he asks at the right time in the right amount (service level)

Reducing variability ("muri") means improving process reliability i.e. lowering cost and improving quality

Reducing waste ("muda") means lowering costs, improving quality and achieving consistent throughput (service level)
LSS Deployment in Facilities Management

Black Belt Projects
- KPI review to identify improvements
- Focused review to identify workshops (Kaizen events)
- Focused on business excellence

Green Belt Project
- KPI review to identify improvements
- Lead by trained Green Belt
- Focused improvements for problem solving

Quick-win Project
- Quick operational changes
- Done by every employee
- Encourage staff to think and change

Communications
- Q & A
- Case studies
- Peers sharing
- Incentivize Best project selection

Culture & Talent
- Systematic LSS trainings:
  - Yellow Belt, Green Belt, Black Belt
- LSS topic trainings

Standard Processes & Performance Management

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JLL’s Achievements on LSS in APAC

2016 M$2.2 savings
- Framework & Org support structure
- Basic awareness of LSS & Yellow Belt training
- Engagement with local & regional accounts
- >500 staff on basic awareness; 233 staff certified as Yellow Belt

2017 M$1.4 savings
- Planning process and engagement with stakeholders.
- Trained 42 JLL staff for Green Belt
- >1,000 staff on basic awareness training.
- >500 staff certified as Yellow Belt

2018 M$1.1 savings
- More quality projects, not just for savings
- >1,000 staff certified as Yellow Belt (planned)
- 8 JLL certified Green Belts

2019 consultancy, automation & KPI framework
- LSS as a consultancy
- Black Belt certification
- KPI framework
LSS implementation challenges

- Not a project for cost savings
- Not headcount reduction initiative
- Not centralized project deployment by LSS experts
- Not changes based on gut feeling
- Not ONE-OFF project
Case studies
Case studies: Security Process Optimization

**Problem**
The Shanghai Client A factory employs 35 guards looking after 70,000sqm, 4 gates. The security process was the bottleneck to factory production output increase.

**Actions**
Reduce team idle time based on truck quantity analysis: day shift vs. night shift, weekday vs. weekend (scheduling opportunity)
Remove non-value added operations and balance workload among guards for truck check-in/out processing (Value Stream Mapping (VSM))
Maximize truck receiving capacity, remove bottlenecks in processing (Take-time analysis)
Improve staff utilization through re-arranging night shift patrollers and gate guards

**Results**
Maximize truck receiving capacity to 115 trucks per day, enabling full factory output
Streamline truck check-in/out processes, gaining 720 hours per year
Reduce 4 headcount, saving 12% annually
**Problem**
Cleaning is the largest spend category in Client B in HK, with 1.8M USD per year for 2 main buildings. The team is under high pressure to improve quality.

**Actions**
- Breakdown processes by location and activity, reduce cleaner movements, waiting time and double work
- Optimize cleaners shift arrangement, reduce idle time (scheduling opportunity)
- Improve vendor performance management with standardized quality inspection processes (daily, weekly & monthly), enhancing cleaning quality

**Results**
- Standardized D-W-M spot inspection
- Reduce 23 part-time headcounts, saving 107K USD annually
Case studies: Transport Process Re-engineering

**Problem**
55% erroneous payments on transportation services across 4 locations of Client C, caused by a mismatch in operational and commercial structure

**Actions**
Define the focused improvement area using CTQ (Critical to Quality) and process mapping
Billing process flowchart (based on trips repository) and identify the root cause (cause-effect diagram)
Align commercial and operation structure, create prices based on distance (predefined location)
Implement a technology solution (based on Google Maps) to determine distance

**Results**
KPI score of 5 (out of 5), 20% additional management fee (70k USD)
Reduction of defects from 55% to 35% (Sigma level from 1.4 to 1.9).
Savings of 140K USD per year, meeting glide path target
Thank you