$68B
Net Sales

21
Billion Dollar
Brands

$3.5B
CapEx
Projects are uncertain and complex with too many moving parts

Projects uncertainty can’t be tamed by planning.

The best way to manage uncertainty:

- Accept and embrace it;
- Shorten the feedback loop;
- Engage all the stakeholders in a collective approach. The system has wisdom. Listen for it, listen to it.
• It isn’t possible to predict the time and cost.
• Most projects continue to run late and over budget in spite of digitalisation and offsite.
• Projects on average lose some time every day and no one measures this.
• Time accounts for around 80% of the project cost
$68B
Net Sales

21
Billion Dollar
Brands

$3.5B
CapEx
P&G has been implementing systems aimed at increasing the predictability of our manufacturing and our overall Supply Chain, in order to increase efficiency, reduce inventories, increase Quality and Safety, etc.

- **Continuous Improvement**
  - (Zero losses – 100% employee involvement)

- **Reduce number of stops of our manufacturing systems**
**LIPD Journey**

**KEY ELEMENTS:**
- INTEGRATED SYSTEMS
- DATA DRIVEN
- CONTINUOUS MONITORING
- CONTINUOUS IMPROVEMENT (KAIZEN)
- USE FOR DAILY DIRECTION SETTING

Adopting LIPD methodology to deliver construction of new buildings and major capital projects is the natural extension of that journey!

London Bridge (Reading) is the first project in the UK using LIPD & The APD (Accelerating Project Delivery) System
LIPD Journey

• LONDON BRIDGE - LIPD APPROACH

• LIPD contract
  • Partners: Graham Construction and Michael J. Lonsdale
  • Shared risks and profits scheme ("Skin in the game" for all 3 partners)

• Collaborative Design Sessions
  • Aimed at achieving an affordable Target Cost
  • Key Sub-contractors early involvement
How we Began
Ali Mafi &
Hamied Ghadimi

Working on the Relationships

Workshops on how to be with each other

Dealing with the 4 toxins:
blame, defensiveness, stonewalling and contempt

Creating mutual understanding by getting the individuals to see the world through the eyes of others

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The APD set up

- **The Road Map (Programme):**
  - Collective validation of:
    - Completeness – activities, links
    - Robustness – logic
    - Assumptions
  - Aggregation of all the traditional built in time protections such as:
    - Task paddings
    - Monday starts
    - Milestone deadlines
    - Batching of work
    - Spurious buffer tasks.

<table>
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<th>Aspects of the strategic framework and the process protection</th>
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- Task paddings
- Monday starts
- Milestone deadlines
- Batching of work
- Spurious buffer tasks.

- Task allocations
- Resource allocations
- Task dependencies
- Resource constraints
- Task dependencies
- Resource constraints
- Task dependencies
- Resource constraints

- Support compliance with these validation stages of the system
LIPD Journey

- The APD System:
  - Weekly update
    - Direct elapsed time input form supply chain
    - Establish impact on the end date and buffer consumption.
LIPD Journey

- The APD System:
  - Weekly session (3 – 4 hr)
    - Including:
      - Client (project management and technical resources)
      - Partners’ supervisors
      - Key subcontractors’ black hats
    - Review impact on End-Date, Opportunities and challenges
  - 6-week look ahead
  - New Weekly plan with prioritisation of tasks (Red/Blue/Orange/Grey)
  - Walk around to review critical tasks
  - Assessing opportunities for offsite
  - Use of BIM to assess better and short sequence of work.
LIPD Journey
Using the APD System

- The APD System:
  - Daily Morning Direction Setting (30 min)
    - Construction partners and sub-contractors
    - Review critical activities for the day
    - Confirm resources readiness, barriers, etc.
The APD System

- **The APD System:**
  - **Daily Check-in (15-30 min)**
    - Client and Construction partners supervisors
    - Input Red, Blue and Orange activities of the day (remaining time to complete)

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The APD System

- The System:
  - Daily walks
  - Supervisors
  - Assessing the system
    - One Piece Flow
    - Awareness of the priorities
    - Awareness of the remaining durations

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<th>Task Name</th>
<th>Duration</th>
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</table>
• **Key Benefits of APD System**
  - Clear daily task prioritisation (Red/Blue/Orange/Grey tasks)
  - Helps focus all the team on supporting the people owning the Critical task(s) of the day (Red activities)
  - “GPS-like” system to predict End Date daily
  - Fosters collaboration and use of collective knowledge versus individual or company interests
  - Focuses the team on the system (here and now) not the outcome in the future. Less stress and greater well being

• **Challenges**
  - Counter-intuitive for Construction Industry practices (maximising individual subcontractor efficiencies and cash-flow versus overall project effectiveness)
  - Reluctance to try new things (“Know-all syndrome”) or Already doing it

**LIPD Journey**

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