

Strategic Alignment Of Skills Training In Construction

Presented By: Mr. Raaj Singh (Managing Director, Snathe Group)

About Us

- **UK Management**, International Construction background, **Middle East Expertise**
- Designed GCC specific **trade testing, training** and **performance measuring** procedures (**OSAT**)
- Designed and managed **Skills Training Centers**: Qatar, India and UAE
- Trade Tested **50,000+** operatives
- Trained: **15,000+** operatives
- Designed and successfully implemented **Frontline Supervisor Training**
- Designed and successfully implemented **lean management** techniques
- Working with UAE's **National Qualifications Authority (NQA)** and Abu Dhabi's **Quality and Conformity Council (QCC)**

Methodology

Snathe are **leaders** in conducting **Construction Skills Assessments, Training** and implementing **Lean Performance Management Solutions** through a process of:

Consultancy:	Expert advise in Skills Training to Governments and Private Sector
Analysis:	Business analysis, measuring workforce efficiency
Assessment & Training:	Designing training methodologies to significantly improve productivity
Implementation:	Results driven performance management strategies

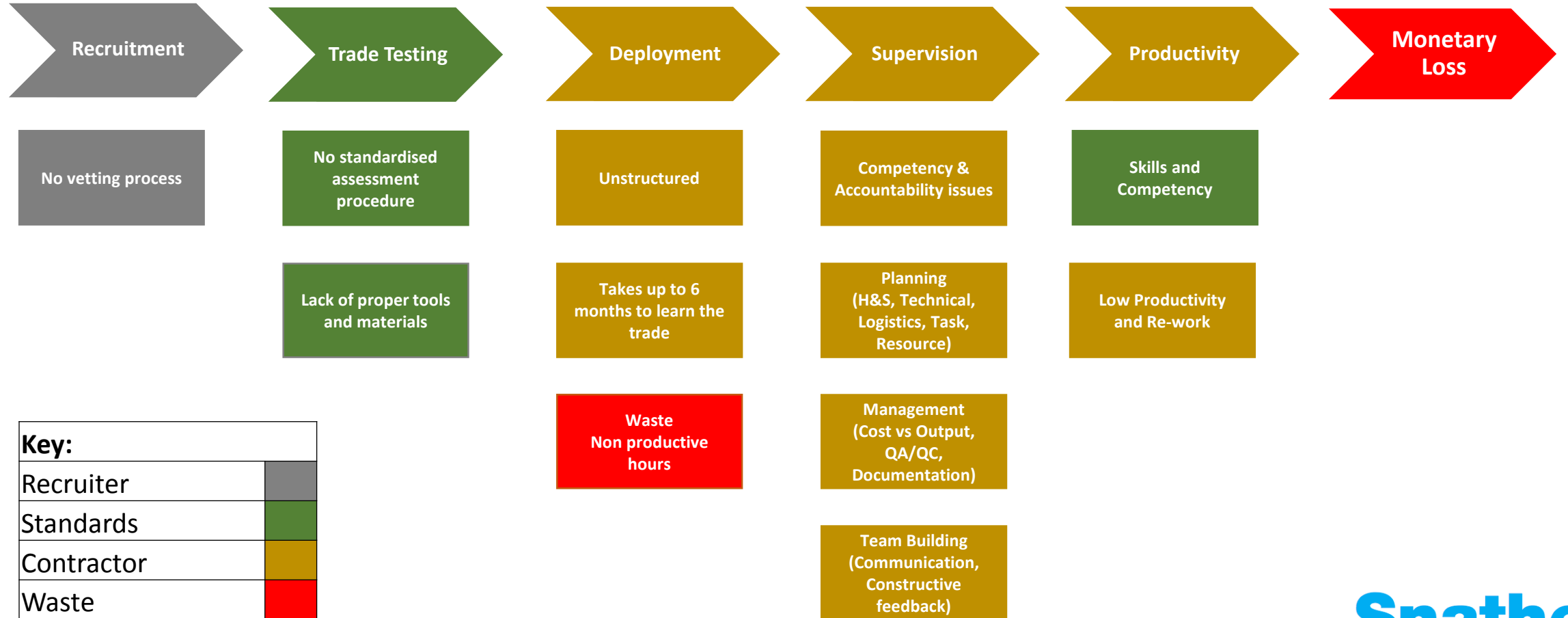
Skills Assessments- Training Solutions – Measuring Performance- Change Management

Holistic Approach to Skills Development

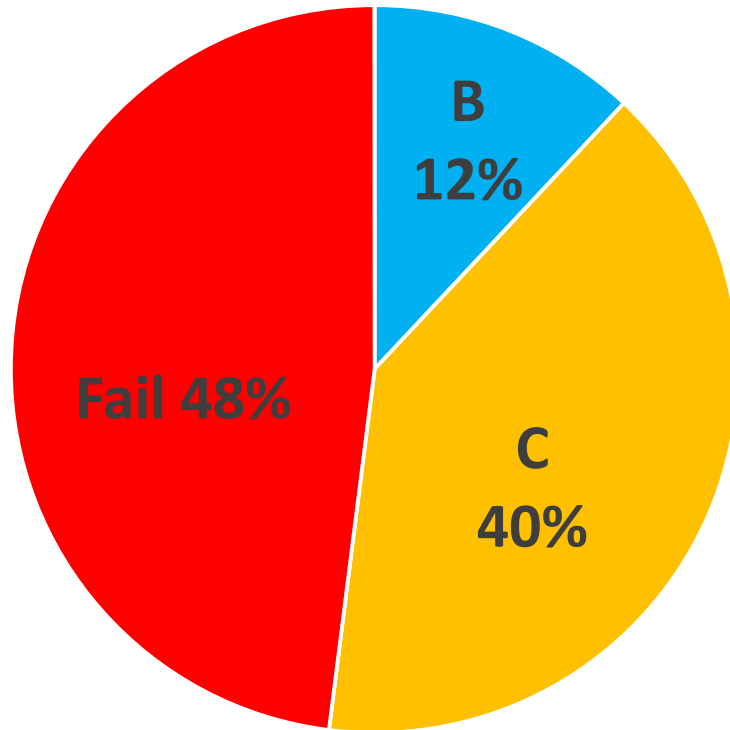
- ✓ National Standards
- ✓ Talent Acquisition
- ✓ Training & Certification
- ✓ Aligning Skills
- ✓ Productivity
- ✓ Quality Control
- ✓ Career Path
- ✓ Reward
- ✓ Job Satisfaction
- ✓ Sustainability



Key Factors Affecting Alignment



Assessment Results of 50,000 Operatives



■ A ■ B ■ C ■ Fail

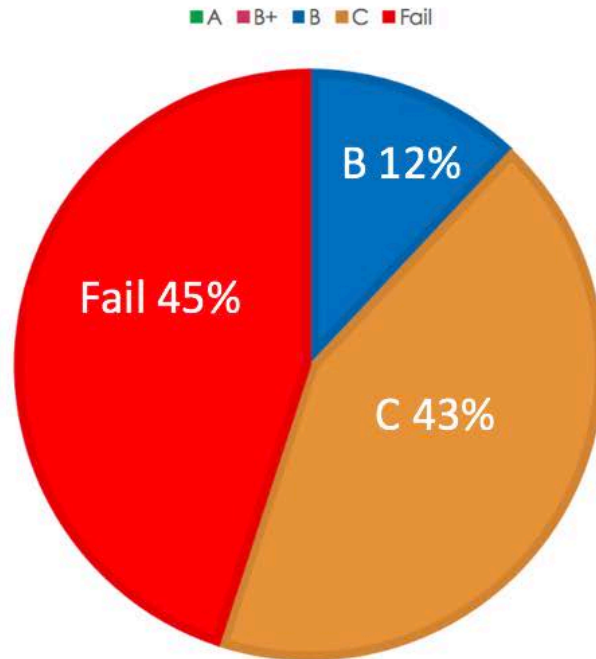
Grade	Score
A	95%+
B+	81% - 94%
B	61% - 80%
C	50% - 64%
Fail	Below 50%

Trades Assessed:
Locations:

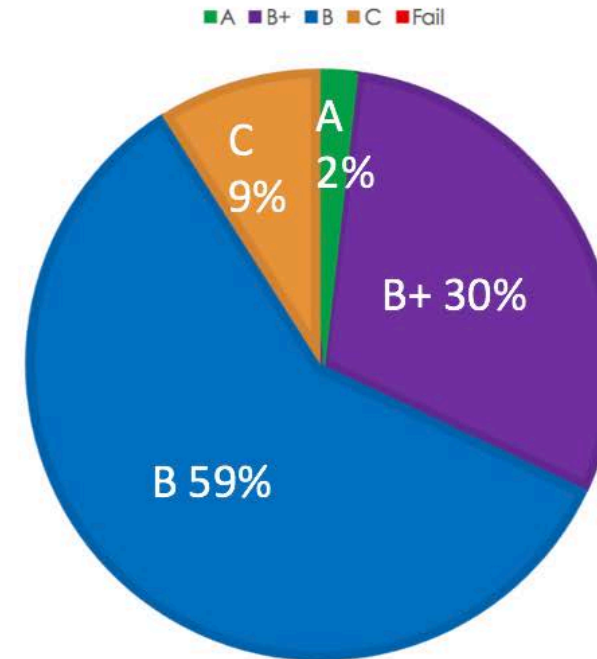
Steel Fixing, Shuttering, Masonry, Interiors and MEP
Bahrain, Qatar, UAE, India

Case Study: Assessment Results Before and After Training*

Results Before Training



Results After Training



- *Data for **3000** Operatives employed by a major UAE contractor
- Trades: **Steel Fixing, Carpentry** and **Masonry**
- Based on **12 day training** programme
- **3 months** on-site observation, evaluation and assessment

Grade	Score
A	95%+
B+	81% - 94%
B	61% - 80%
C	50% - 64%
Fail	Below 50%

Case Study: Training & Incentivising

Before Training

- Lack of Planning
- Unorganised
- No Targets
- Management Issues



- Low Productivity
- Cost Implications
- Loss on Labour



- Unskilled
- Improper Tools
- H&S Issues



After Training

- Task Planning
- Gang Structure
- Productivity Targets
- Trained Supervisors



- Increased Productivity
- Meeting Norms
- Profitability



- Trained
- Competent
- Quality



Case Study: Impact of Training on Performance & Wages

No.	Trade	Productivity * Pre Training	Productivity Post Training
1	Blockwork (200mm hollow blocks)	40 blocks	96 blocks
2	Spray Plastering (12mm internal render)	6 m2	14 m2
3	Steel Fixing (20mm rebar)	220 kg	400 kg
4	Formwork (slab decking)	4 m2	7.5 m2

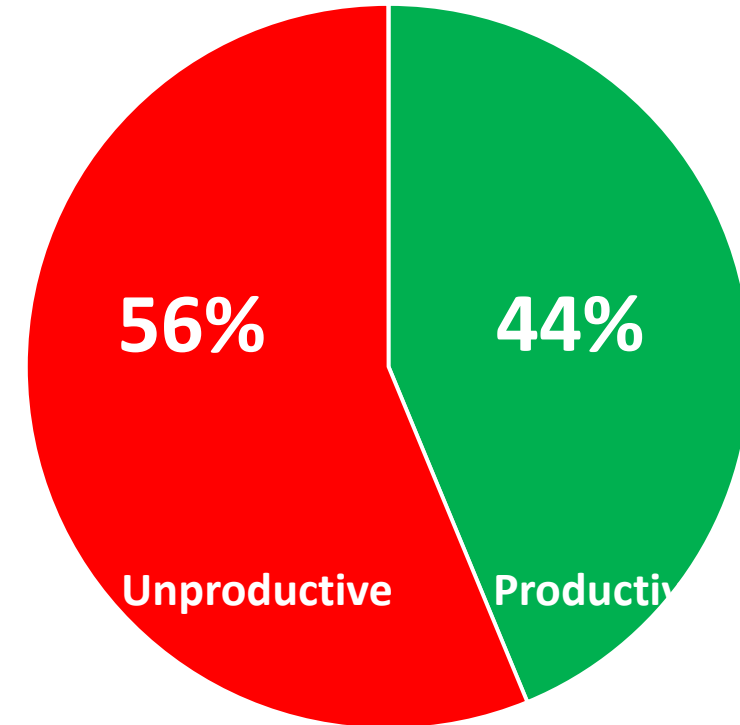
Average productivity data collected for 1000 operatives over 12 months.

1. Provision of trade specific tools, training and techniques to improve productivity
2. Strategic Forward Planning: Technical, Task, Logistics, Resources
3. Creation of competency specific gang structures (team building)
4. Trained and accountable Frontline Supervisors
5. Plan daily, weekly productivity targets, measuring performance (cost v output)
6. Quality Control during build – providing constructive feedback
7. Continued improvement; monitoring, tracking and analysing productivity data

Improvements due to training and onsite management of operatives and frontline supervisors by Snathe

Typical Causes of Low Productivity*

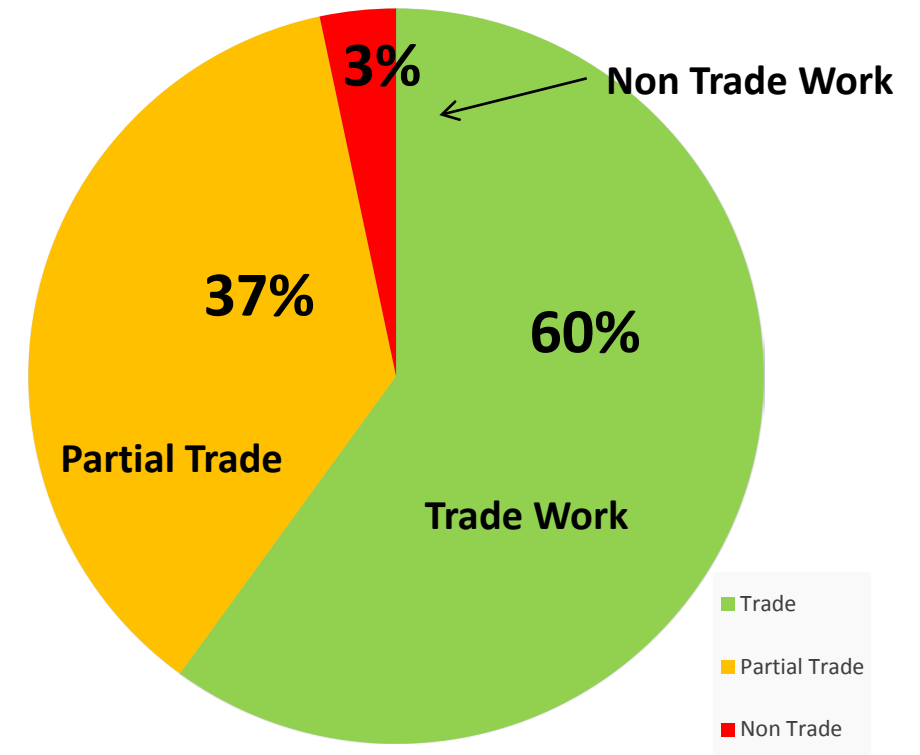
Average Workday (8 Hours)	Hours
Actual Productive Hours	3.5
Poor time keeping	1
Downtime – Poor forward planning	1.5
Under performance due to poor skills	2
Average time lost each day (WASTE)	4.5



- *Results of Market Research*
- *On Site Assessments – time and motions studies*
- *Measuring performance against standard productivity norms*
- *Discussions with contractors*

IMPACT: Low Productivity = Low Worker Salary

Case Study & Analysis: Labour Deployment and Distribution



Contractor: Labour deployment, peaks and troughs:

The above survey was carried out in July/ August 2016

Resource Management: 37% of 1500 nr workforce (555nr) carrying out **partial trade** activities:

Man-hours wasted: 4 hours per man per day = **57,720** hours per month

(Cost AED 577,200 - USD 157,000 per month)

Case Study: Waste Analysis

Key Waste Areas	Waste Hours	% Waste	Total Labour	Monthly Man Hours	Monthly Loss AED	Projected Annual Loss AED
Time keeping	1	25%	945	24,570	245,700	2,948,400
Downtime	1	25%	945	24,570	245,700	2,948,400
Production	2	50%	945	49,140	491,400	5,896,800
Partial trade work	(4)	50%	555	57,720	577,200	6,926,400
Totals in AED					1,549,740	18,720,000
Costs in USD (\$)					\$422,000	\$5,000,000

**Measuring performance of Supervisors and Operatives: Contractor "A" 1500 construction workers*

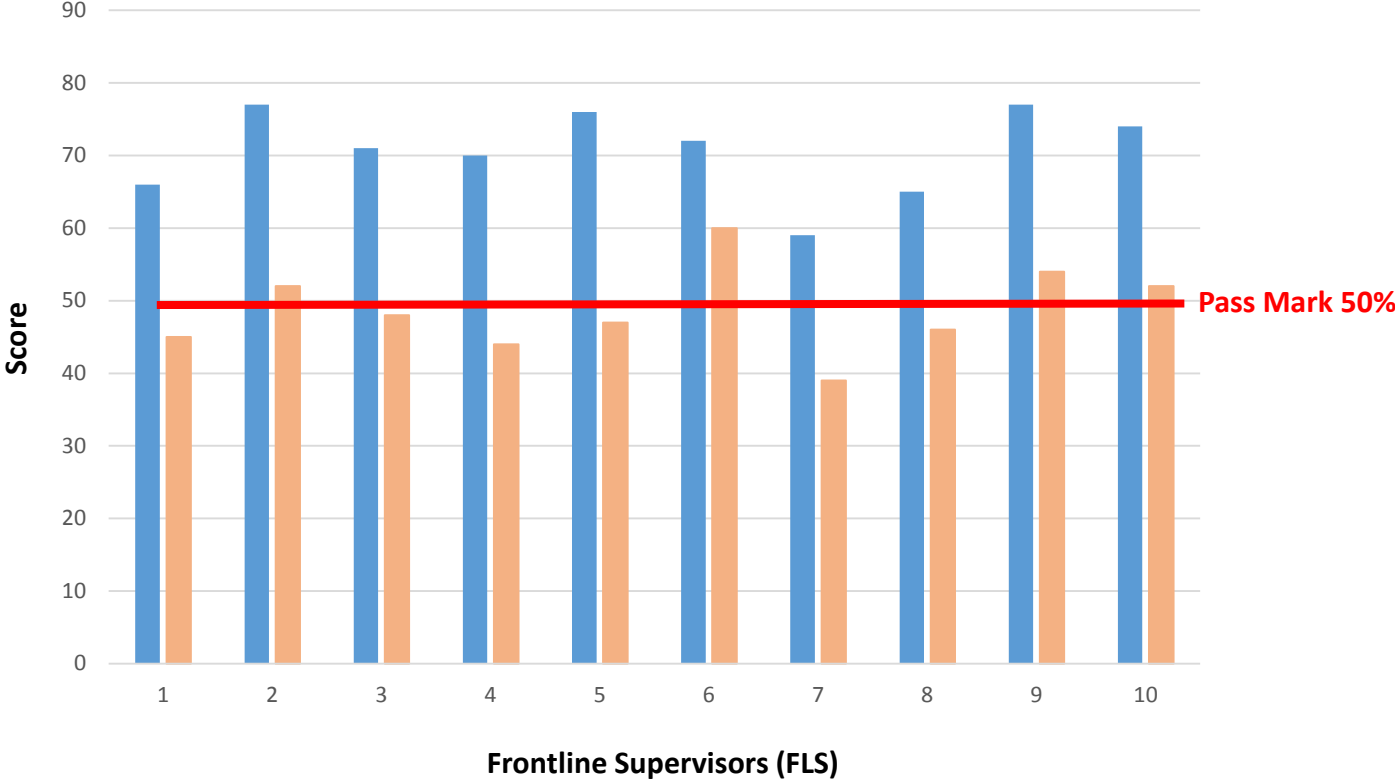
*Our market research, **Site Audits, Analysis** and discussions with **leading GCC Contractors**, shows that there is an average of **4hours** of waste per man **per day** due to a combination of **poor operative skills** and **supervision**.*

Hourly rate used for calculation purposes was AED 10 per hour.

Comparative Frontline Supervisor Evaluations

Evaluation Data of 500* FLS on:

- 1. Health & Safety Knowledge
- 2. Management Ability
- 3. Technical Competency
- 4. Planning
- 5. Trade Knowledge
- 6. Resource Management
- 7. Quality Control
- 8. Cost Control

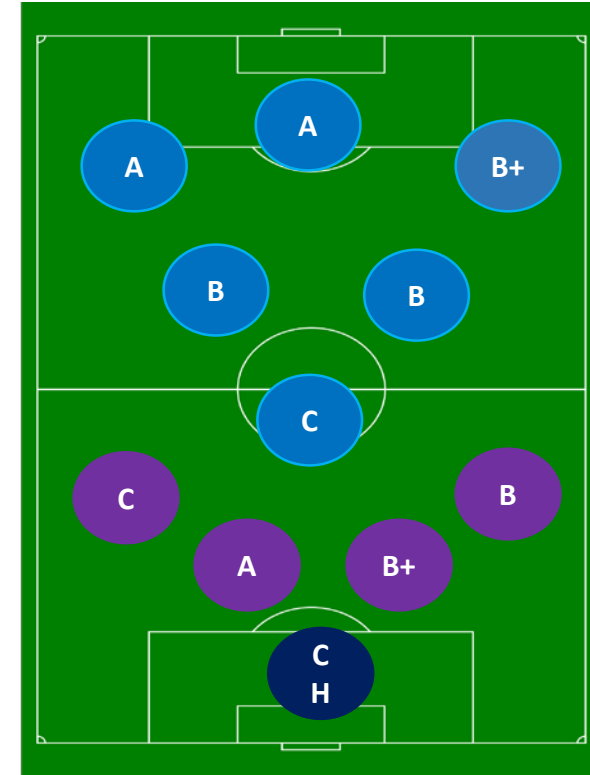
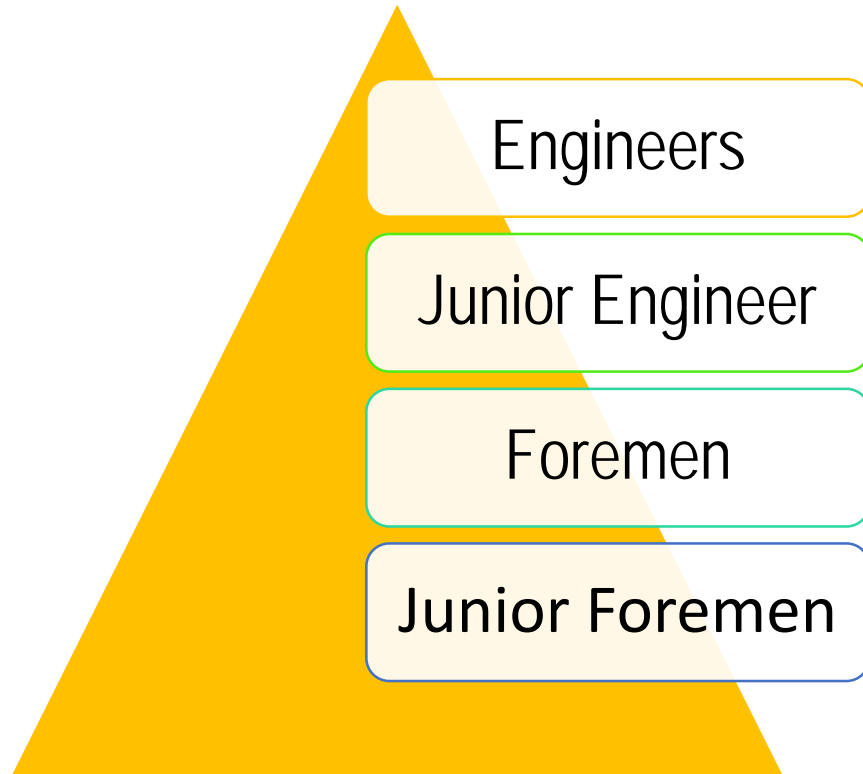


**On average 500 FLS manage 20,000 operatives
1nr FLS manages 40 operatives*

Contractor

Snathe

Training Supervisors: Improved Productivity & Wages



Gang	Grade	Skills, Roles & Responsibilities
Frontline Supervisor (FLS)		Leadership, Management, H & S, Planning, Technical, QA/ QC , Communication
Change Hand	A	Gang Deployment, Management, Logistics, Productivity, QA /QC , Teambuilding
Trades	A, B+ B, C	Work to Specifications, Productivity, Quality Control, Meeting Targets, Forward Planning
Helper	A, B+ B, C	Logistical Support, Forward Planning, Housekeeping

Goal: Strategic Alignment

Strategic Alignment

Sustainable results

Qualification

Skills Levels

Training

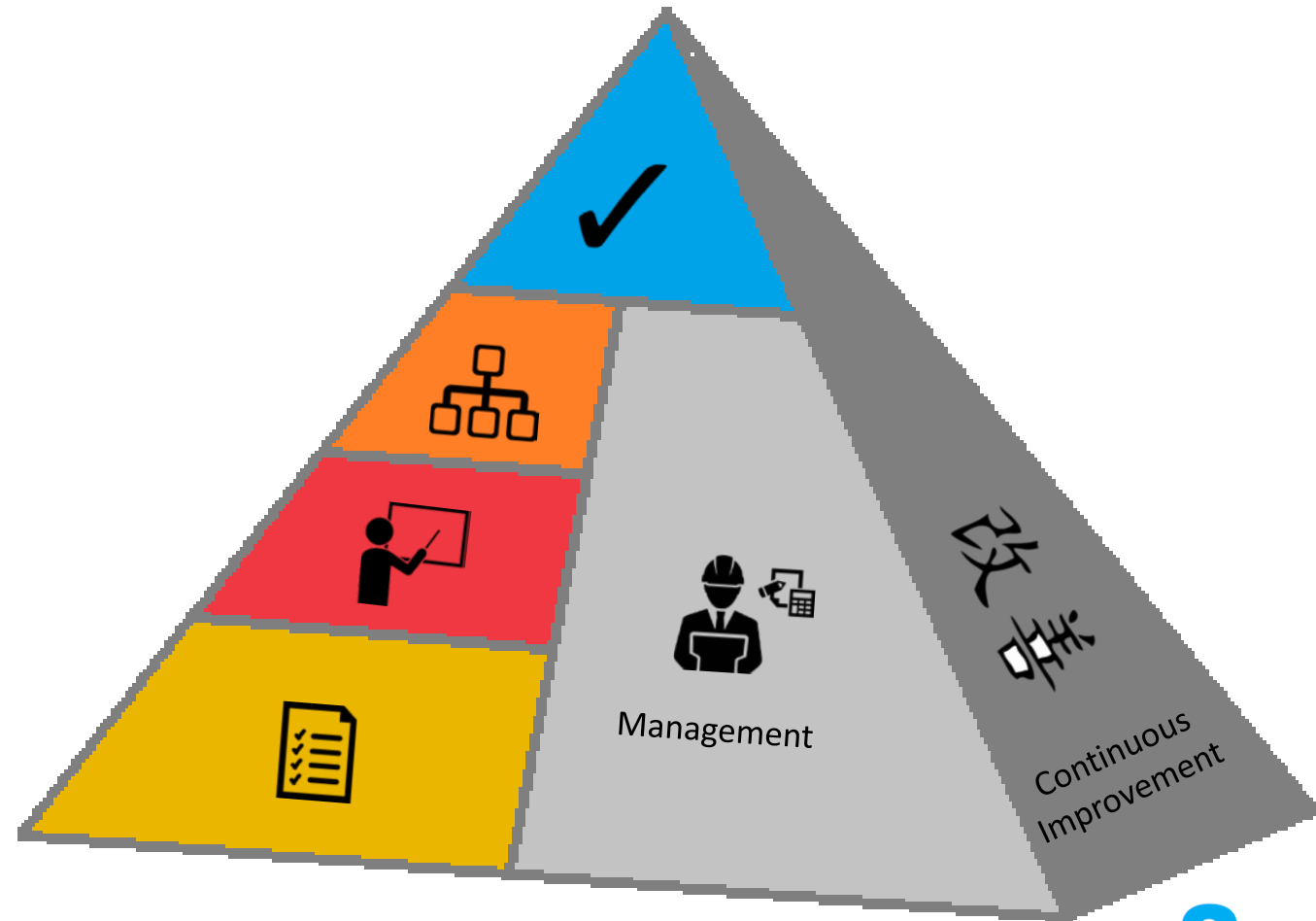
Skills and Competency

Standardised

Training, Assessment and Certification

Management

Planning, structuring work force, measuring output, constructive feedback, training and development



Recommendations

No.	Subject	Focus	Strategies
1	Training	<p>Relevant</p> <p>Competency</p> <p>Evidence</p> <p>Certification</p>	<p>Modular training programmes aligned to GCC Contractor requirements.</p> <p>Occupational skills, underpinning knowledge and the ability to apply the skills in the work place.</p> <p>Portfolio's measuring productivity and quality of key tasks linked to Contractor productivity norms.</p> <p>Skills and competency based qualifications levels.</p>
2	Contractor	<p>Training</p> <p>Journey to Competency</p> <p>Career Path</p> <p>Structure</p>	<p>Develop training programmes for Middle Management, Supervisors and Operatives.</p> <p>Monitor and track performance to develop and improve competency.</p> <p>Establish a clear career path linked to competency and workplace performance – reducing attrition.</p> <p>“Gangs for life” , monitoring and tracking leads to accountability of Supervisors and Operatives</p>
3	National Standards	Certification:	Mandatory for all construction workers (country of origin and destination)

Summary: Sustainable Results

**Mandatory
Certification**



Excellence

Government
Standardised
Qualifications
Origin & Destination

Worker
Underpinning
knowledge
(Technical and Trade)

Contractor
Strategic
Alignment

Management
Planning,
Implementation
and Supervision

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