



Lean Implementation within VINCI Construction

Lessons Learnt and Future Perspectives

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Who we are!

VINCI Construction UK is a national construction and facilities company. We are part of VINCI, a world leader in concessions and construction. We design, build, finance and manage facilities which improve everyday life. These include the systems that transport us, the buildings in which we live and work, the water, energy and communication networks that build our communities.

VINCI Construction UK

VINCI FACILITIES

TAYLOR WOODROW

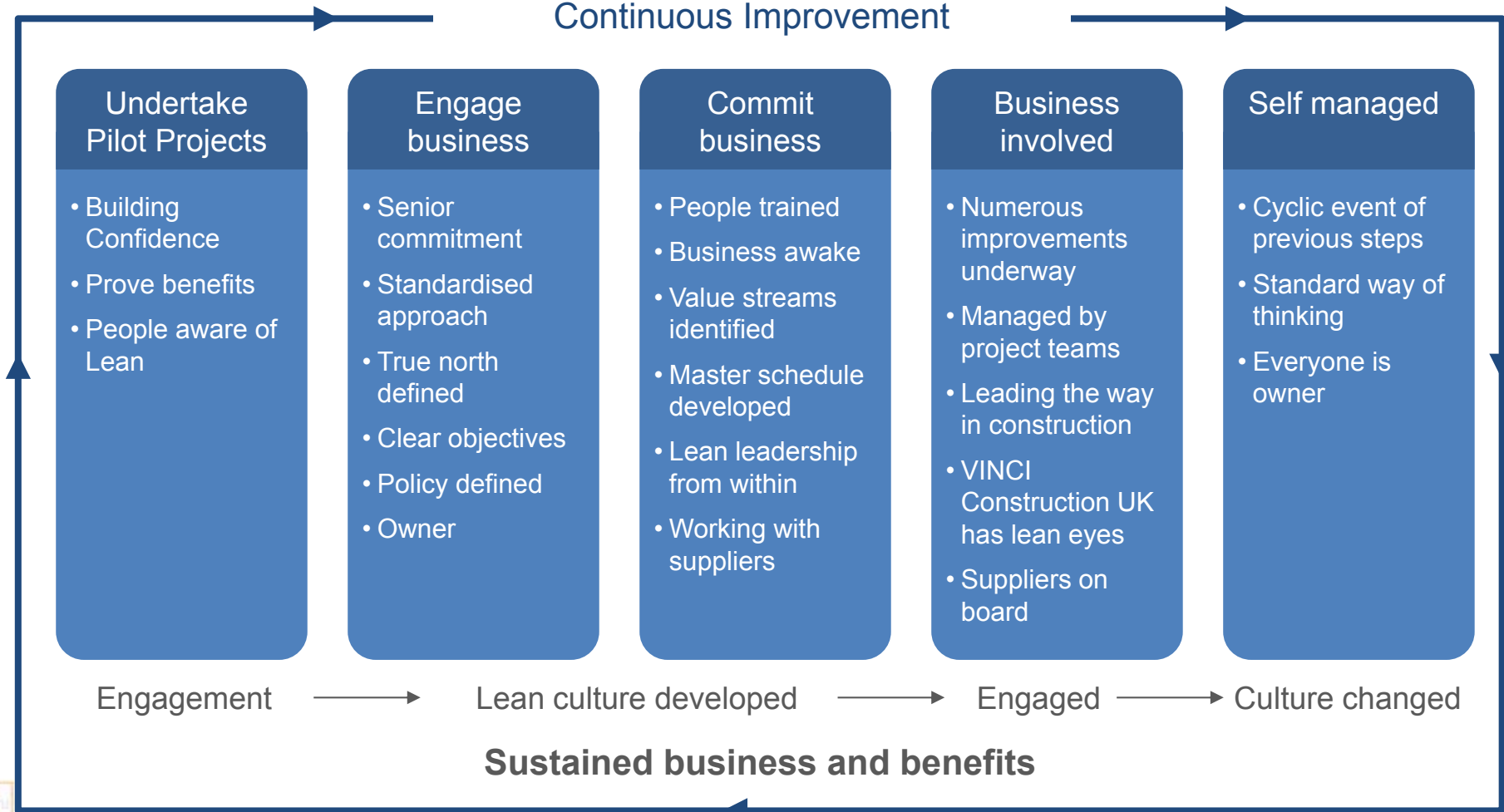
TECHNOLOGY CENTRE

BUILDING DIVISION



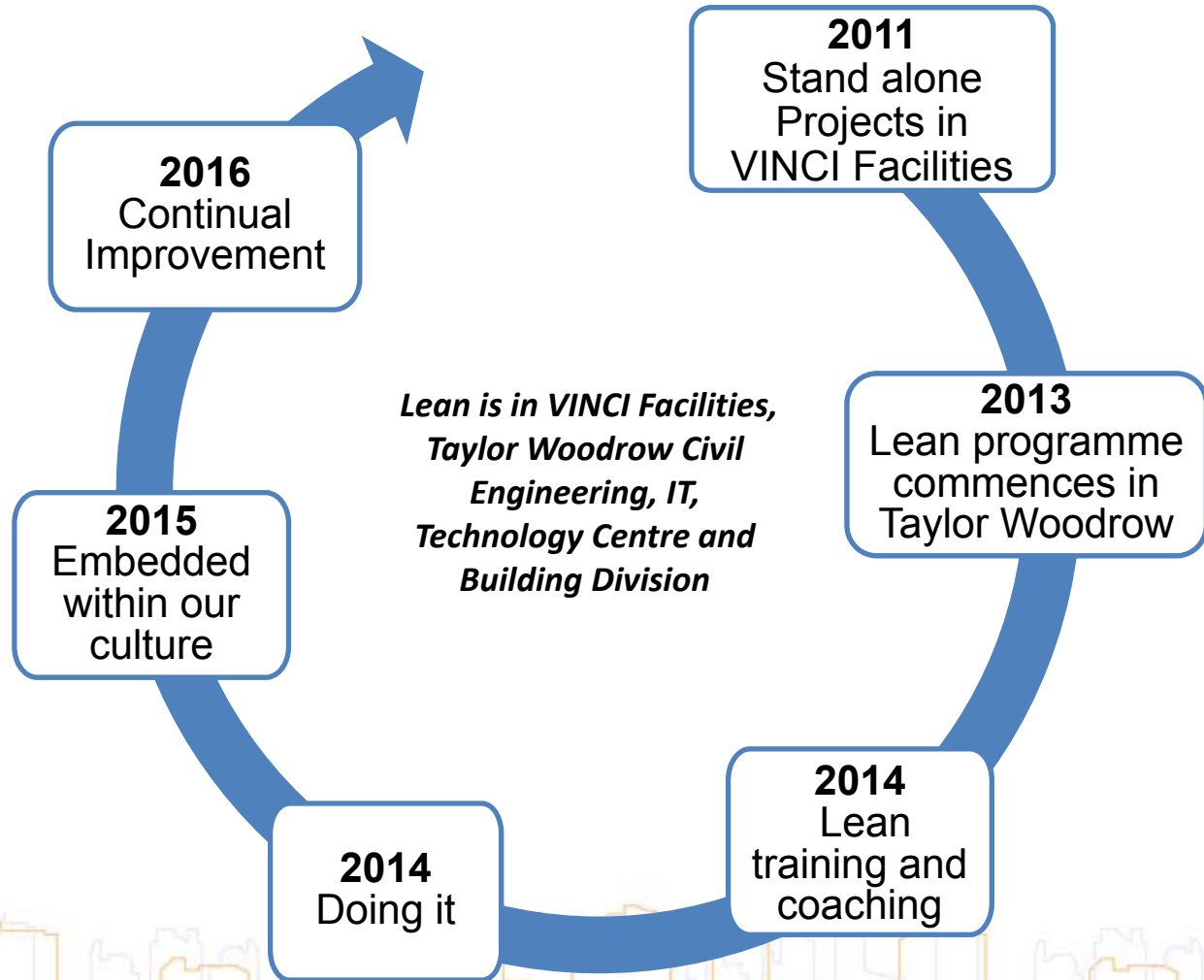
Strategy

Communication and Collaboration
Continuous Improvement

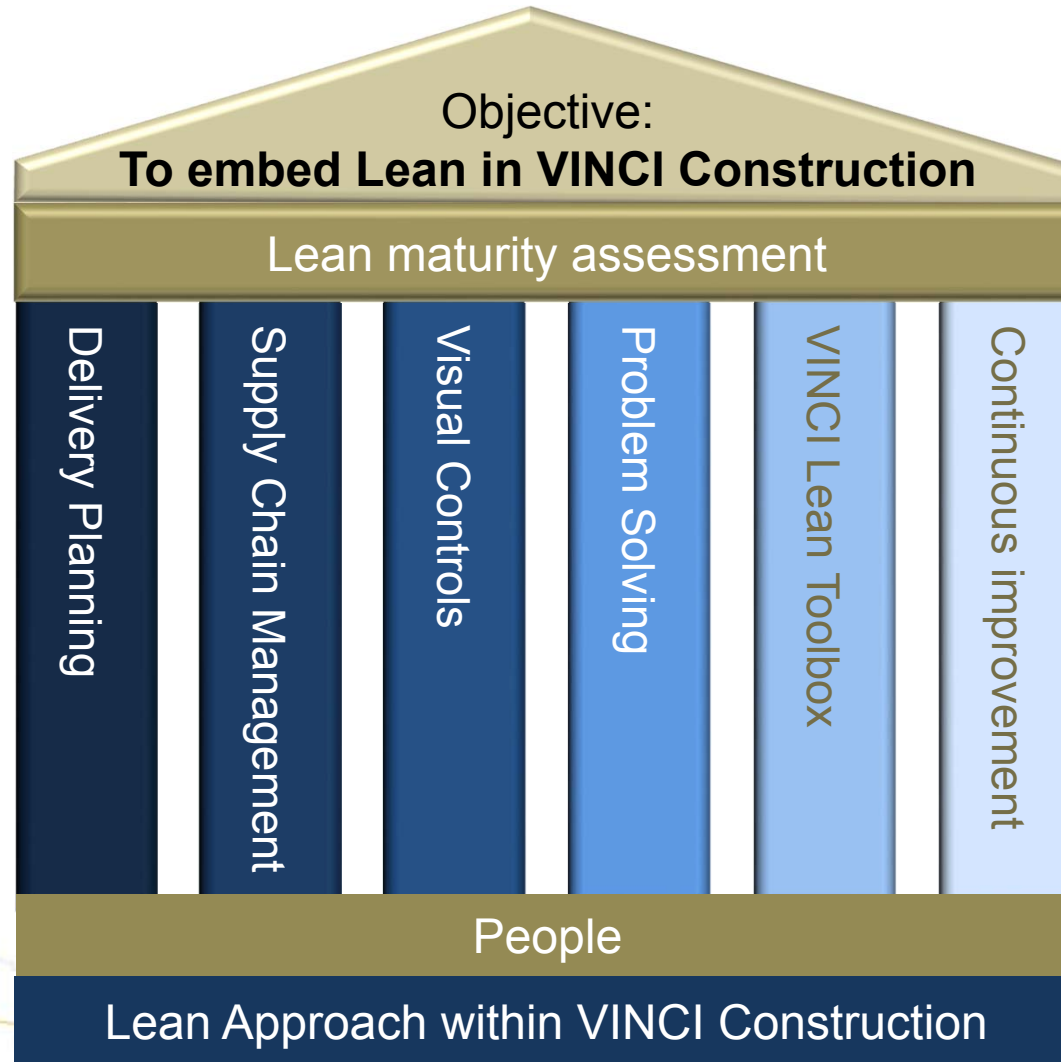


Current status at VCUK

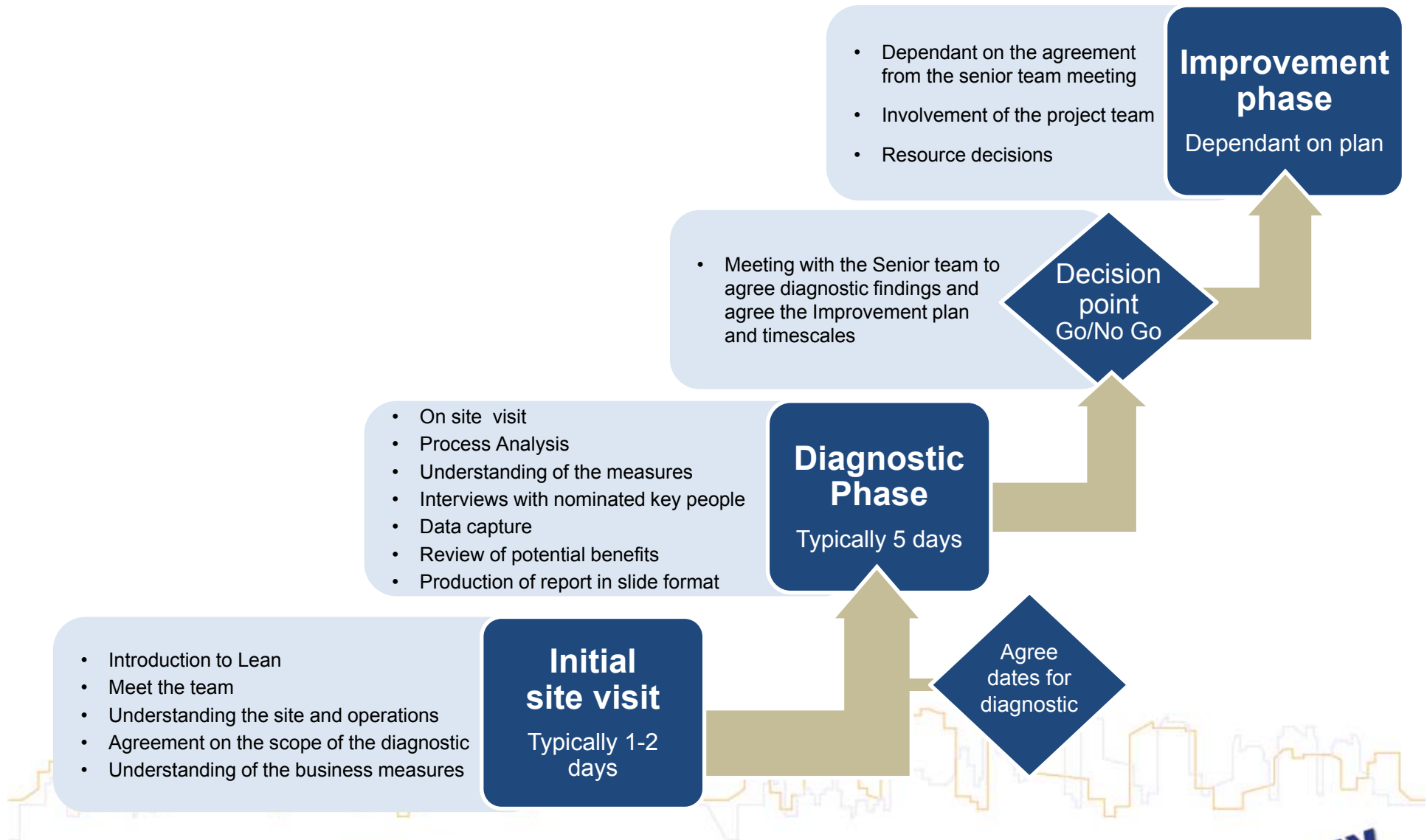
- Lean Strategy published in VINCI Construction UK
- Lean Implementation Plan published
- Regular Lean articles
- Lean basic training and knowledge published
- Lean share point site operational
- Lean maturity assessments taking place
- Lean improvement projects in place
- Knowledge transfer sheets available



We have a developed framework

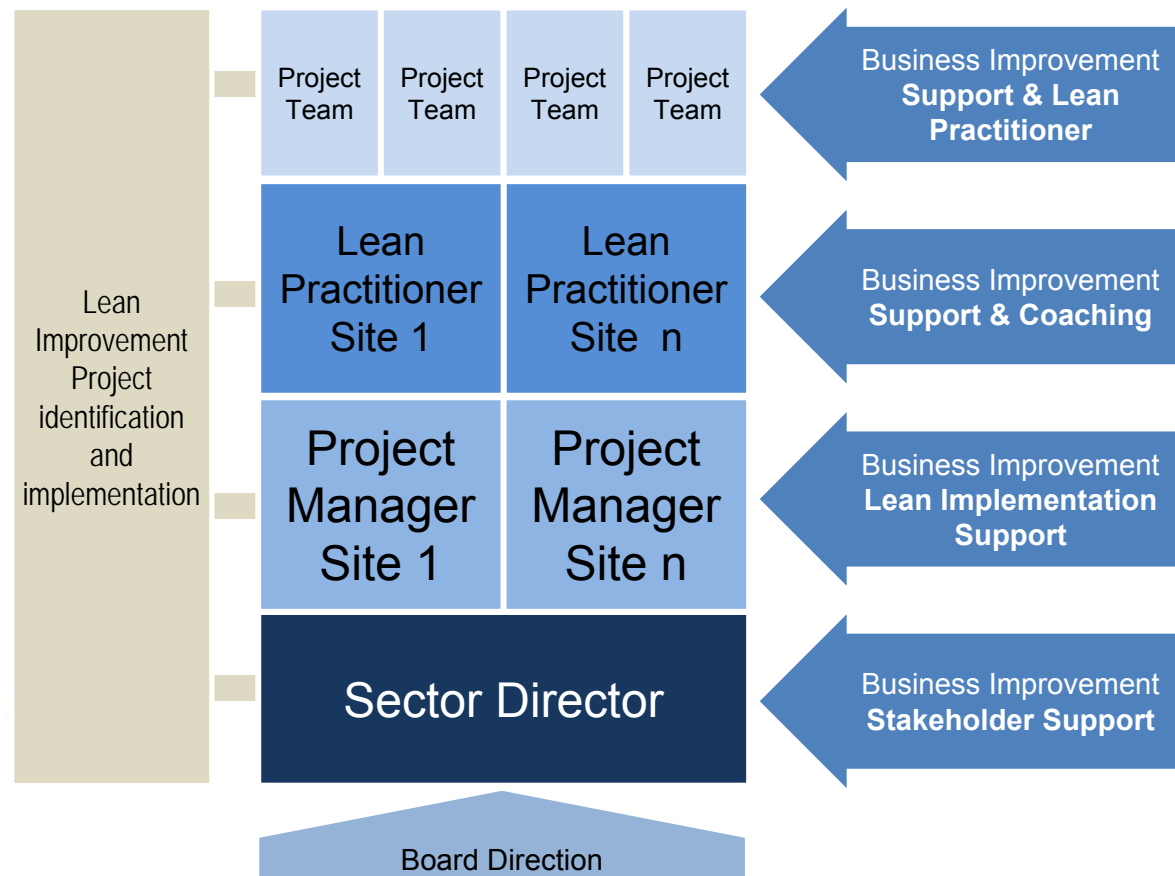


So what's our approach? - Option 1



So what's our approach? - Option 2

We have trained **21** Lean Practitioners that cover **13** project sites and **3** business functions driving Lean Improvement projects and training site construction teams in the application of Lean Tools and Techniques.



Due to the success of the programme
projects **just want it!**



Results so far!

Lean now becoming **more visible** around the business

- Well developed in Facilities and TW Civils,
- Developing programme in Building

The Lean Practitioner role is established and **21** people trained in Lean and undertaking projects worth potentially **£1.35M of savings**

TWCE Senior Managers **lean awareness**, Project Directors trained, focussed training is on-going for site operatives for an awareness of Lean

VINCI Facilities **savings of £1m** through Lean improvement projects

Overall baseline for Lean Maturity Assessments established and is part of **regular project reporting**

It's an **important part** of the training for all site management teams. This programme is called **Orchestra**

Results so far!



- Visual management for Quality
- Focal point for Quality briefings
- Information station



NCR Description	Date to Rectify	Resolution Status
1. [Description]	£500 per instance	Open
2. [Description]	£1000 per instance	Open
3. [Description]	£500 per instance	Open
4. [Description]	£500 per instance	Open

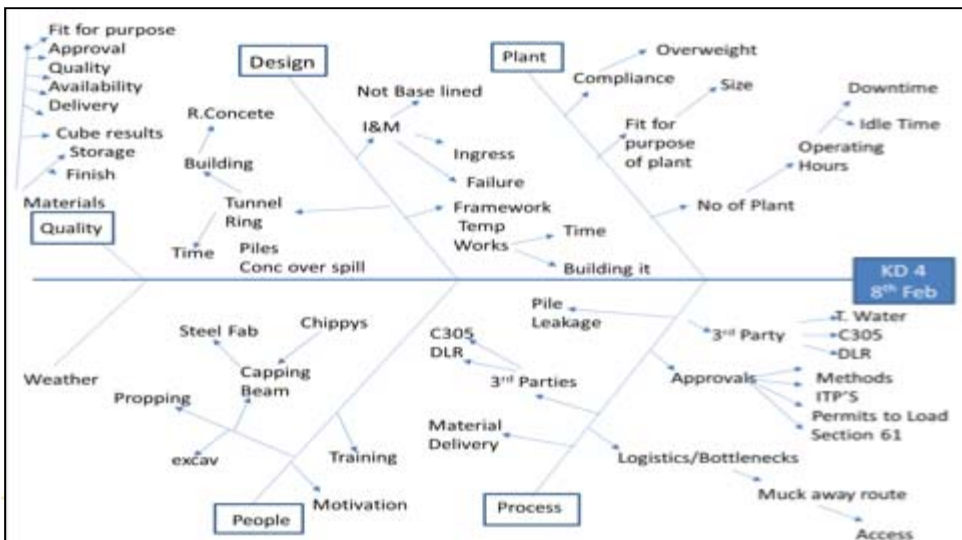
Excavation Lean Improvement Project



Lean Improvement Projects:

- Problem solving techniques
- Lean meetings
- Close coupling of excavation vehicles
- Process mapping
- 3D Modelling of reinforcement bar fitting
- Quality benchmarks for concrete works

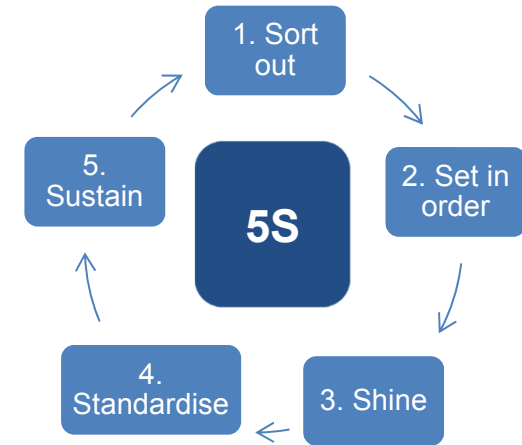
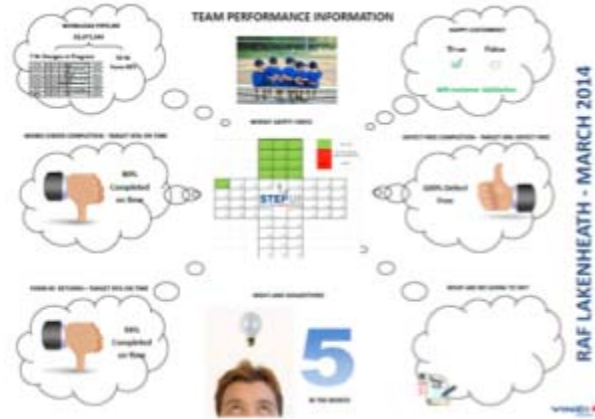
Savings of 19 Days enabling £150k achieved



Lean Team Meetings



Information Centres



Ideas & Suggestion Boards



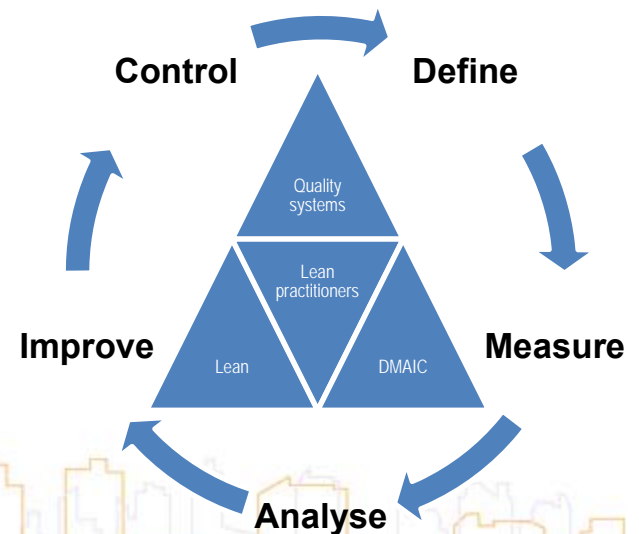
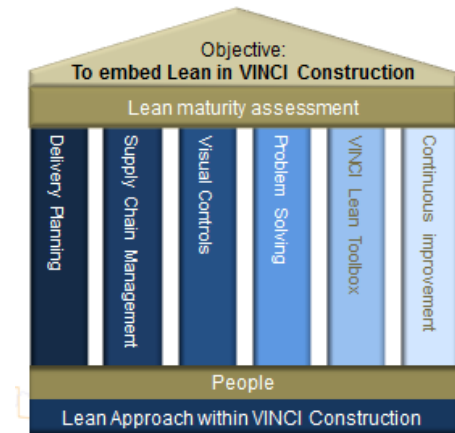
Teaching the 7 wastes

- Transport
- Inventory
- Motion
- Waiting
- Over Production
- Over Processing
- Defects

Lean Management Walks



- More projects for Lean Improvement
- Further training for the Lean Practitioner on projects
- Lean Maturity Audit on all VCUK projects
- Introduce Lean into the “front end elements”
 - The Design and procurement stages of Construction
- Lean principles are being implemented as part of an improvement project concerning Information Management



Lessons learnt

- **Top down commitment is key** – *hence the continuous engagement of the stakeholders, publication of Lean news, success stories and benefits*
- **“It won’t work here!”** *is a saying that is continually being heard in nearly all workshops – continued reinforcement of successful Lean Construction examples and the modification of traditional Lean techniques to suit Construction*
- **Identification and realisation of benefits is hard** – *When writing the project charter business benefits are identified and quantified, they are signed off by the sponsor and tracked via a monthly tracker by the Lean Practitioner.*
- **Need to amend the traditional lean techniques to suit construction** – *Set up reduction is now a “readiness review” as an example.*
- **No Lean terminology used in the workshops** – *Plain English used resulting in no confusion*



Future perspectives

- **Lean linked to Agile development** - What lessons can be learnt from the Agile methodology and can these be applied to Construction?
- **Everyone to think Lean including our clients**
- **Lean to be part of our tenders**, resulting in Faster Builds and Lower Cost
- **Further training** involving our clients and suppliers

