



Lean-besøk hos Apply

Næringsforeningen i Stavanger

19.02.20

APPLY

Lean-besøk hos Apply 19.02.20

- | | | |
|--|---------------------------------|--|
| • 0900 - 0915, Registrering & kaffi | Kaffiområdet utenfor Auditoriet | |
| • 0915 – 0930, Velkommen & Safety introduksjon til Apply | Auditoriet | Frode Berge & Astrid Aadnøy |
| • 0930 – 1015, Apply sin LEAN reise | Auditoriet | Astrid Aadnøy & Vigdis Jøsang |
| • 1015 – 1045, Deltakerne deles inn i 2 grupper, roterer på 2 stasjoner; <ul style="list-style-type: none">• Obeya møte• 24 timers møte | 2 ulike møterom | Astrid Aadnøy & Vigdis Jøsang & Åshild Svennevik |
| • 1050 – 1100, Oppsummering & Spørsmål | Auditoriet | Astrid Aadnøy & Vigdis Jøsang |

Safety intro to Apply Atrium



THIS IS APPLY

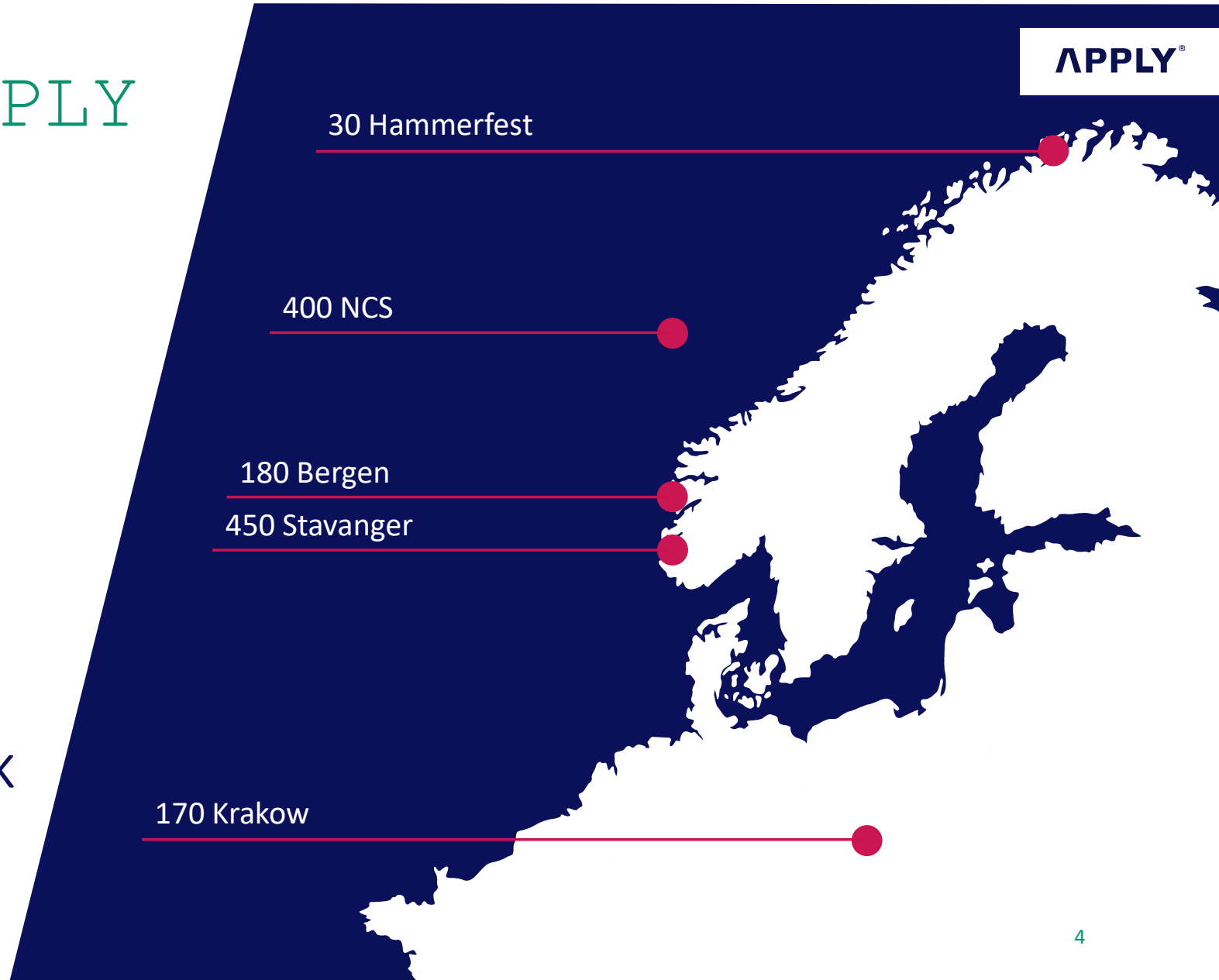
Founded 1979

Personnel 1200

Revenue 2,0 BNOK

Order backlog 7,5 BNOK

23.02.2020



APPLY blir et **MORELD** selskap

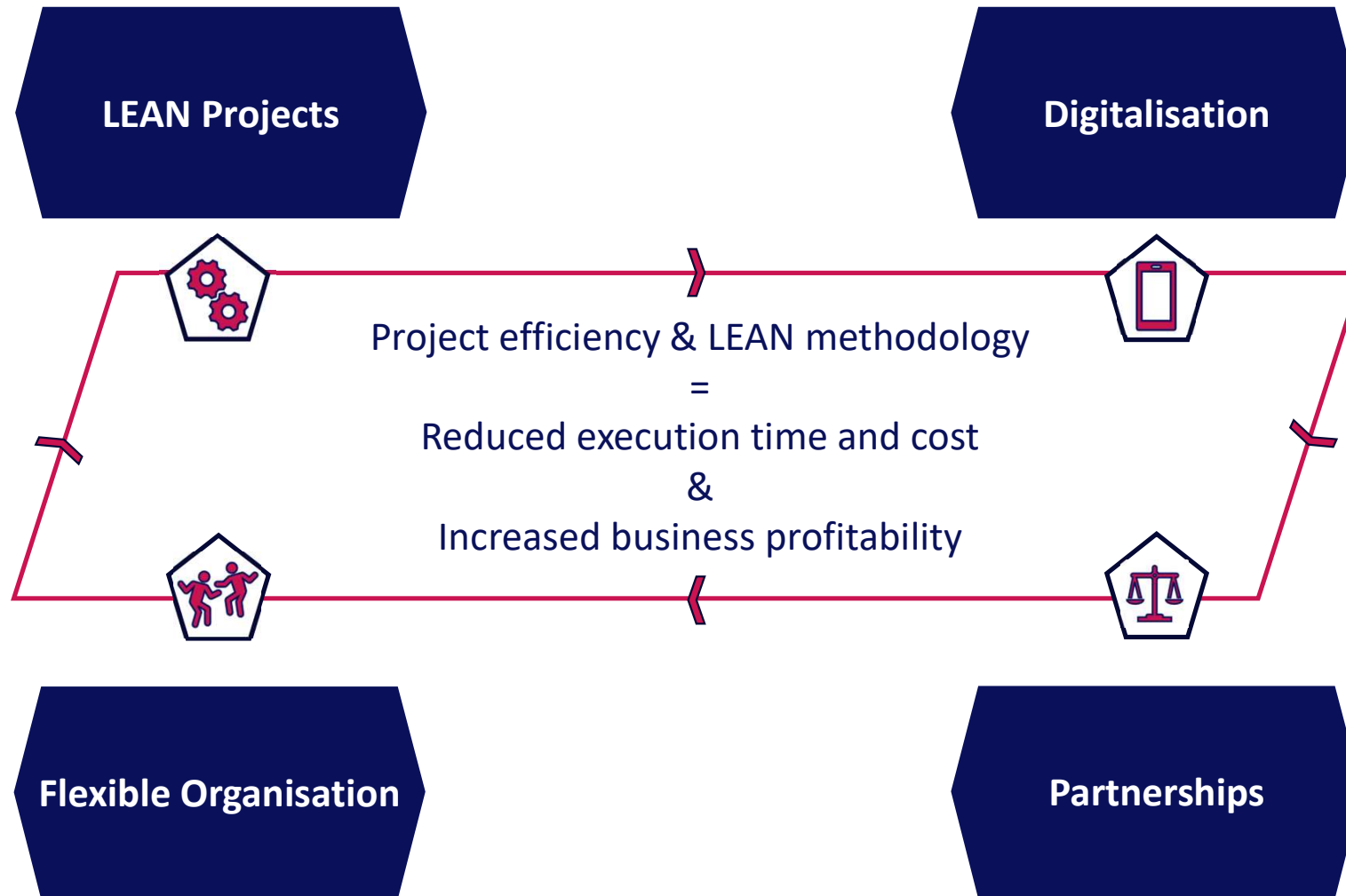
- Moreld - stort industrikonsern basert på 20 selskaper
 - 3600 ansatte
 - Omsetning 2020 - 9.6 MrdNOK
 - 10 lokasjoner
- Det enkelte selskap vil fortsette å operere under sitt eksisterende navn med eksisterende ledelse
- HitecVision er eier av industrikonsernet

- Moreld vil bygge videre på kompetansen og markedsposisjonen til hvert av selskapene i konsernet
- Størrelsen og den finansielle styrken vi får som del av det nye konsernet vil gjøre oss bedre i stand til å etablere nye virksomhetsområder, sammen eller hver for oss

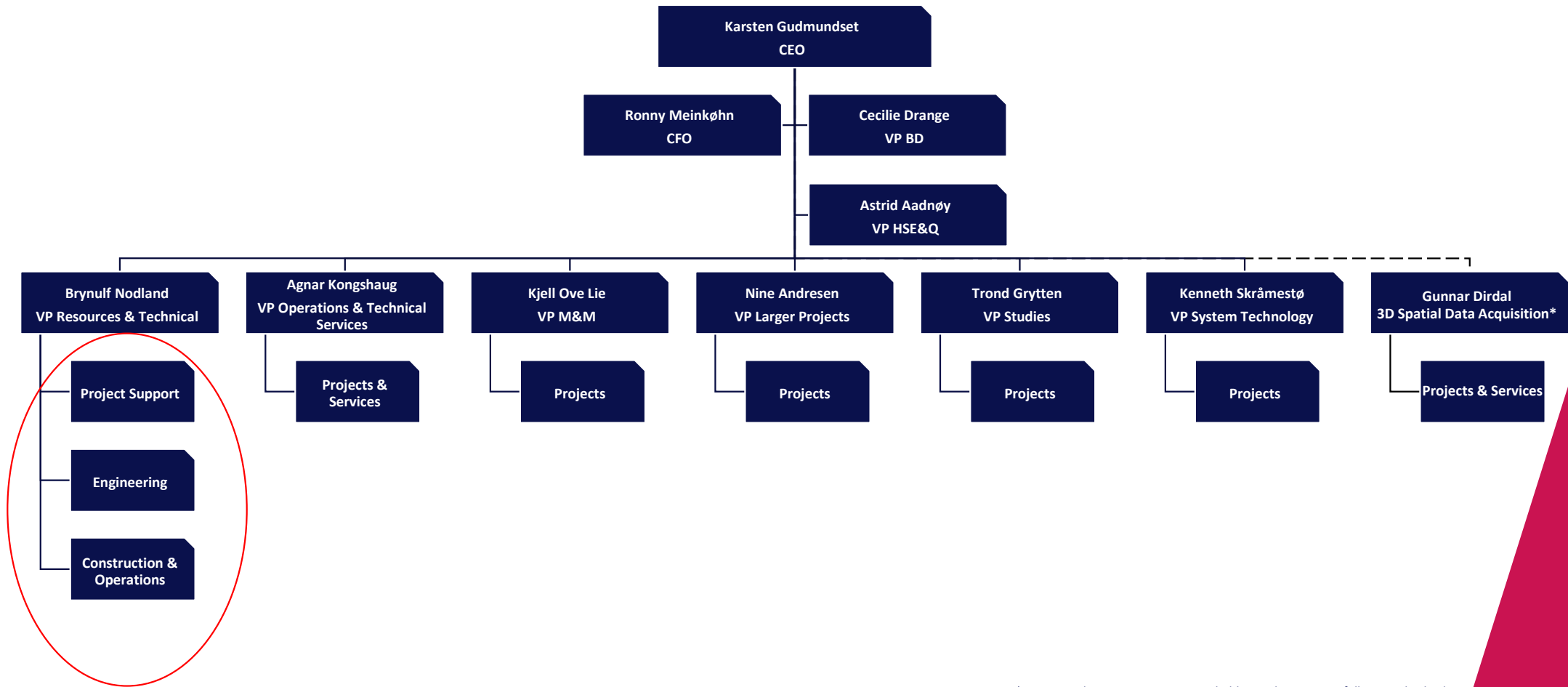


MORELD

Continuous Improvement



This is APPLY



* - 3D spatial Data Acquisition provided by Apply Capnor, a fully owned subsidiary

Våre verdier

We have
INTEGRITY

Vi er pålitelige.
Vi unngår snarveier som går på bekostning av Kvalitet og HMS.
Vi møter vanskeligheter og utfordrende situasjoner med kompetanse og trygghet.

We are
ATTENTIVE

Vi ser og utvikler potensialet hos våre kollegaer.
Vi viser omsorg og vi støtter hverandre i arbeidshverdagen vår.
Vi lytter.
Vi er inkluderende og vi respekterer hverandre.

We have
PASSION

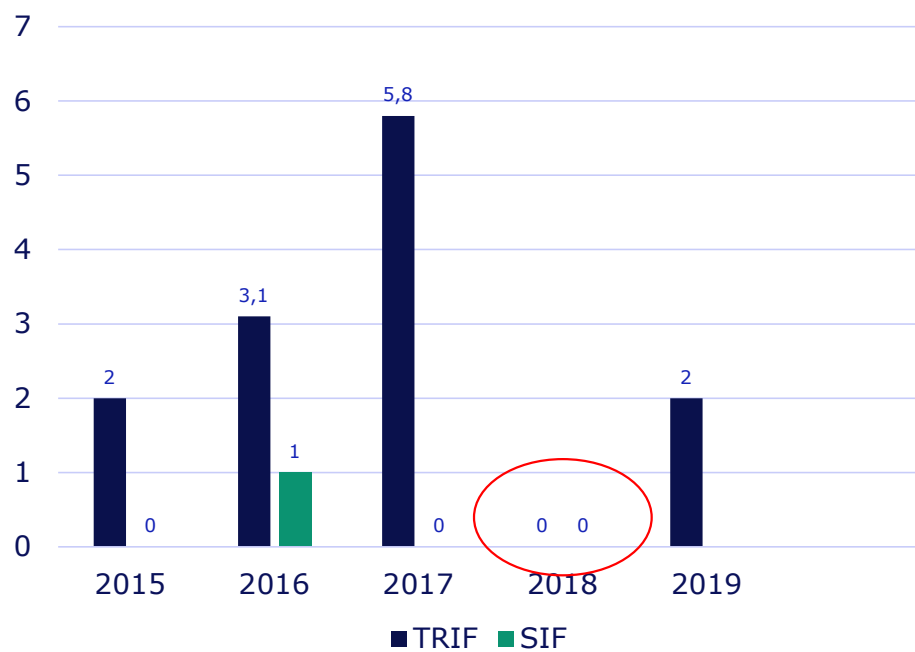
Vi har vilje til å lykkes, vi er fokuserte, dedikerte og entusiastiske.
Vi er modige når det gjelder – vi tar imot utfordringer og er villige til å gi det lille ekstra.

We are
DYNAMIC

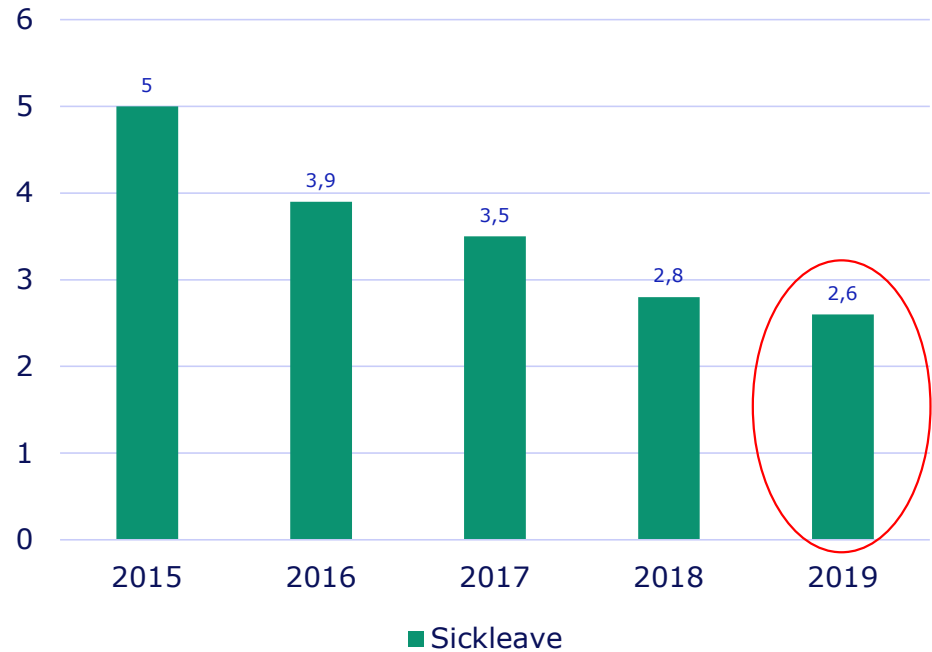
Vi er fleksible og har et åpent sinn.
Vi tar imot nye utfordringer – klar til å endre og tenke utenfor boksen.
Vi er opptatt av kontinuerlig forbedring og å skape nye løsninger for kundene og fremtiden.

HSE Performance

TRIF & SIF - Injury Frequency

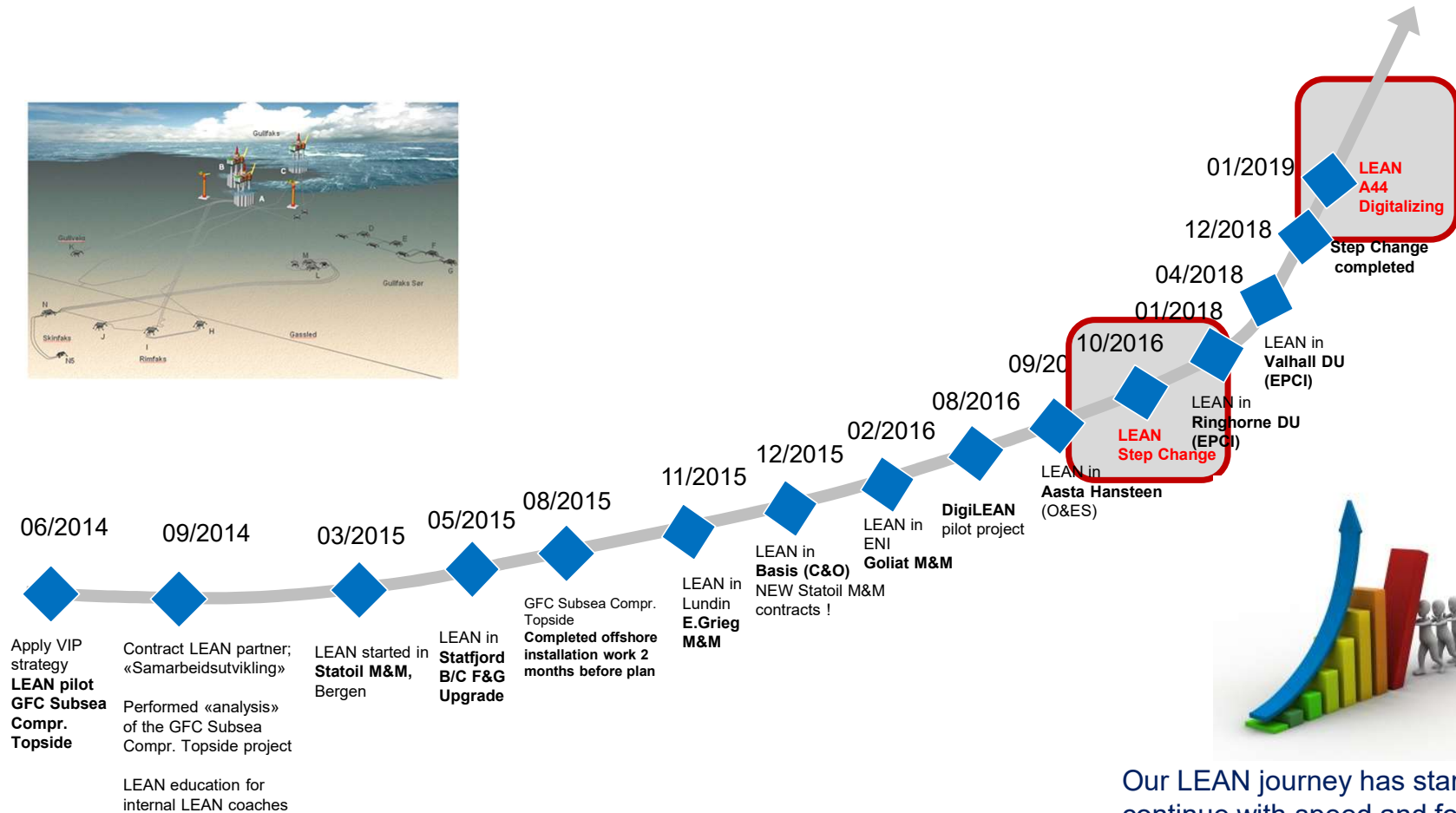
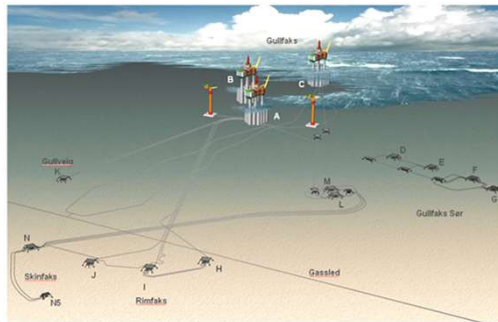


Sickleave [%]



Striving to improve – Our LEAN history

the timeline from the beginning...



Our LEAN journey has started, and continue with speed and focus

VSM – Value Stream Mapping

- Identification of activities in the current workflow and activities that do not provide value to creation of value (waste)
- Customer Value
- Flow efficiency



24h Target Boards Meetings



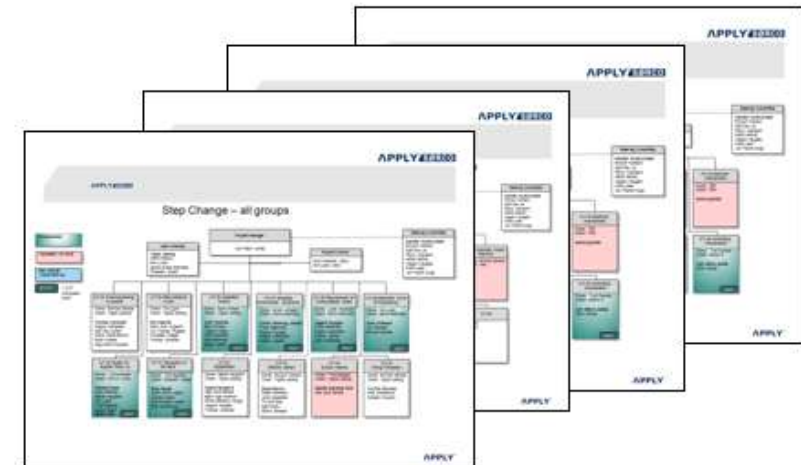
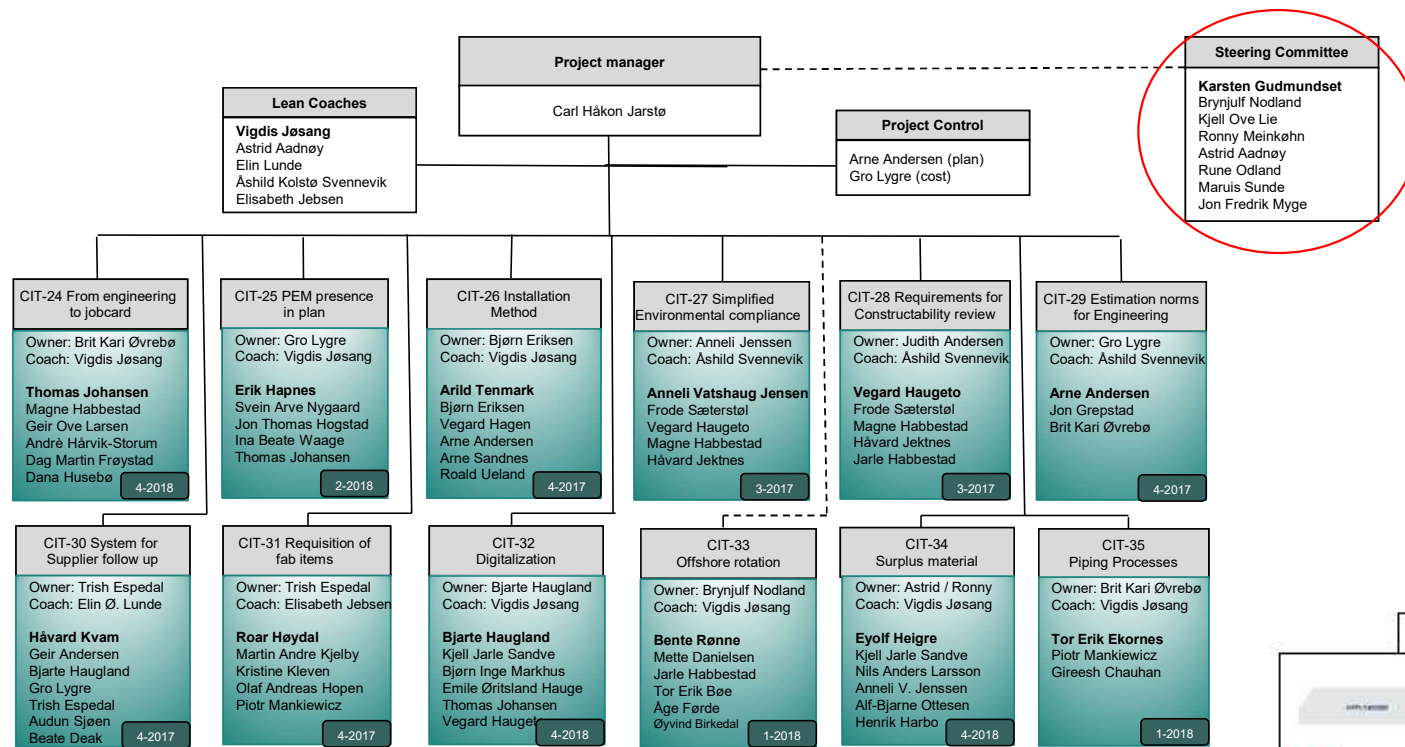
LEAN success med Digilean

- Cloud-based 24 h LEAN target boards allow team members in Bergen, Stavanger and Krakow to simultaneously share and prioritize tasks efficiently
- Internal deliveries / outstanding actions shown clearly on target boards for follow-up at lowest level
- Outstanding deliveries are clear and team can take needed actions

The screenshot displays the Digilean interface for the Engineering department, specifically for Week 35 (spanning 26.08.2019 to 01.09.2019). The interface is organized into a grid with columns representing different project areas: Instrument/Aut, Process/mech/HVAC/maint, Electro, Structure, Piping, MC comm, LCI, Technical Safety (with JSA), and Eng management. A 'Goal' row is visible at the top. The main grid contains task cards, each with a status indicator (checkmark for completion, red 'X' for delay) and a color-coded background (green for on track, red for delayed). Task cards include details such as task ID (e.g., G08BC049-A-AX-0001), description (e.g., 'Internal design frozen tasks'), and assigned personnel (e.g., G08BC042, G08BC049, SAN). A 'Hywind follow-on' task is also visible in the Structure column. The left sidebar shows the date 'Monday Aug 2019' and the number '26'.

«STEP CHANGE» 2016-2018

- organized as a project

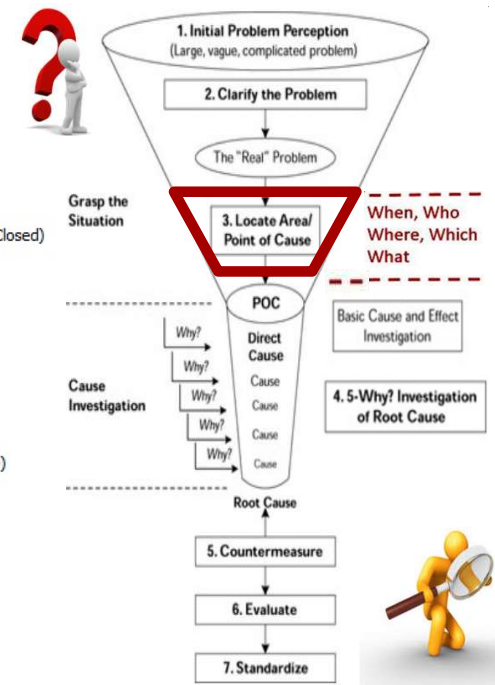


Overview of CIT`s



APPLY®

Folder Name:	Description:	Project Description:
Apply Sørco	Apply Sørco	«Step Change» project
📁 CIT 24 - From Engineering to jobcard (STEP CHANGE - Closed)		
📁 CIT 25 - PEM presence in plan (STEP CHANGE - Closed)		
📁 CIT 26 - Metodedokument (STEP CHANGE - Closed)		
📁 CIT 27 - External environment Goliat MM (STEP CHANGE - Closed)		
📁 CIT 28 - Technical safety Goliat MM (STEP CHANGE - Closed)		
📁 CIT 29 - Forbedret estimering (STEP CHANGE - Closed)		
📁 CIT 30 - System for Supplier Follow up (STEP CHANGE - Closed)		
📁 CIT 31 - Requisition of fab items in VEM (Closed)		
📁 CIT 32 - Digitalization of tools (STEP CHANGE - Closed)		
📁 CIT 33 - Allocation of Offshore Resources (Closed)		
📁 CIT 34 - Surplus material (STEP CHANGE - Closed)		
📁 CIT 35 - Piping Processes (STEP CHANGE - Closed)		
📁 CIT 36 - Effektive avrappingsmøter Statoil VEM (Closed)		
📁 CIT 37 - Technical Safety Improvements (STEP CHANGE - Closed)		
📁 CIT 38 - Structural Improvements (STEP CHANGE - Closed)		
📁 CIT 39 - Mechanical Improvements (STEP CHANGE - Closed)		
📁 CIT 40 - Process Improvements (STEP CHANGE - Closed)		
📁 CIT 41 - Instrument, Telecom ,Controls Improvements (STEP CHANGE - Closed)		
📁 CIT 42 - Electrical Improvements (STEP CHANGE - HOLD)		
📁 CIT 43 - Fabrication process (STEP CHANGE - HOLD)		
📁 CIT 44 - Operations support Improvements (STEP CHANGE - Closed)		
📁 CIT 45 - Maintenance Improvements (STEP CHANGE - Closed)		
📁 CIT 46 - EL-numbers in IFS (STEP CHANGE - Closed)		
📁 CIT 47 - Max PID (STEP CHANGE - Closed)		
📁 CIT 48 - Contracting improvements (STEP CHANGE - Closed)		
📁 CIT 49 - Improve process FEL 1 – 3 (STEP CHANGE - Open)		
📁 CIT 50 - E3D - Automatic drawing production (STEP CHANGE - Closed)		
📁 CIT 51 - Competence management improvements (STEP CHANGE - HOLD)		
📁 CIT 52 - Materials (STEP CHANGE - Closed)		
📁 CIT 53 - Mobile Solutions (STEP CHANGE - Closed)		
📁 CIT 54 - Automatic weight reporting (STEP CHANGE - HOLD)		
📁 CIT 55 - Porteføljeplanlegging (STEP CHANGE - Closed)		
📁 CIT 56 - Low Carbon Future (STEP CHANGE - HOLD)		
📁 CIT 57 - Dashboard solution (STEP CHANGE - Closed)		
📁 CIT 58 - Tool Pool (STEP CHANGE - Closed)		
📁 CIT 59 - Integrated change management (STEP CHANGE - Closed)		
📁 CIT 60 - Estimating Norms -Installation (STEP CHANGE - Open)		
📁 CIT 61 SIL-prosesser og kursing ((STEP CHANGE - Closed)		
📁 CIT 62 - Mobile solution Jobcard og MC (STEP CHANGE - Closed)		
📁 CIT 63 - Automatize data transfer from E3D to IFS (STEP CHANGE - Open)		
📁 CIT 64_A4F 01 - Mobility NovcaCura		
📁 CIT 65 - Commissioning System		
📁 CIT 66_A4F 02 - Virtual Partner Concept		
📁 CIT 67_A4F 03 - Borderless Performance_Office365		
📁 CIT 68_A4F 04 - Dashboards_Datawarehouse		
📁 CIT 69_A4F 05 - Safran 7.2 ILAP		
📁 CIT 70_A4F 06 - Onix Clouds		
📁 CIT 71_A4F 07 - Upgrade COMPLY		
📁 CIT 72_A4F 08 - Implement Visma		
📁 CIT 73_A4F 09 - ChatBot Compendia		
📁 CIT 74_A4F 10 - Snow		



Apply for future (A4F)

A3

Link til Development A3

APPLY IMPROVEMENT / DEVELOPMENT PROJECT CHARTER

A3

Project names: CIT-NNN: Name of the CIT		Sponsor/owner*: Person owning the process and sponsoring improvement initiative	
Project manager: Person leading the improvement project		Date establish: CIT establish date	Date updated: Last A3 update date
Team members: Core team: Name, Name, Name, Name, Name, Name (Support personnel: Name, Name, Name); (LEAN Coach: Name)			

1. Business case / project description

Establish the rationale for the project

- Summarize the improvement project / problem from the business point of view.
- Provide historical context and timeframe, add historical trend graphs if relevant.
- Why is this important to the business?
- How does it fit with strategy?

2. Goals and objectives

What is success?

Project objectives	Project benefits
<ul style="list-style-type: none"> Overall purposes of the project How will the improvement be helpful? Soft / subjective objectives Savings solely for customers due to contract formats? Or, alternatively, OPEX or GM% savings? 	<ul style="list-style-type: none"> Measurable targets (SMART) What process or metric will be improved? What will be reduced or increased? By how much? By when? Realistic or wishful thinking? What assumptions are the basis for the calculation? Savings / profits in money?

3. Scope definition / project deliverables

Establish boundaries

Deliverables / In bounds	Out bounds
<ul style="list-style-type: none"> Which process / system / product to be improved? What will be included in the project deliverables? Which program / area / geography? Be realistic vs available time, resources. 	<ul style="list-style-type: none"> What will not be included in the project? What is off table due to resources? What are the givens or assumptions for the project?

4. Timeline

Overall milestone / delivery schedule

5. Customers / stakeholders

Who has a role or interest in the success of the project?

Role / position	Success Criteria	Communication strategy	Follow-up

6. Risks

What will prevent the project to success in overall?

- Resources / competence / experiences?
- Consequences / impact?
- Overall mitigation actions?
- Add to PIMS Risk and follow up there if necessary

Estimated total costs (NOK)	Estimated annual savings (NOK)	KPI A (Description)	KPI B (Description)
Enter number here	Enter number here	Add target number	Add target number

7. Measure / Analyze

What is current situation / causes?

- IMPORTANT! Simplify processes before digitalization! (VSM as is, Fishbone / 5 Why if relevant)
- Use problem solving A3 if necessary

8. Detailed project plan

Project milestone / deliveries	Owner	Proposed date	Actual date

9. Results

Did we succeed?

KPI	Time of measurement	Target	Goal	Result 1	Result 2	Result 3	Result 4

- Add a graph or updated process to visualize if relevant
- How should we measure that estimated savings are actually realized when the project is completed?
- Has the improvement been successful and will it be implemented?
- Do we need to adjust?

10. Standardization

- System(s) modified / upgraded?
- Processes Work instructions / checklists updated?
- How do we need to train people on the new standard?
- If changes are made in a process, then describe briefly where this is to be found in Comply

Actual total costs (NOK)	Actual annual savings (NOK)	KPI A (Description)	KPI B (Description)
Add number here	Add achieved savings here	Add achieved target	Add achieved target

APPLY PROBLEM SOLVING A3

A3

Subject: CIT-NNN Name of the CIT		MasterPI: Person owning the process or sponsoring improvement initiative	
CIT leader: Person leading the problem solving group		Date establish: CIT establish date	Last A3 update date: Last A3 update date
CIT members: Name, Name, Name, Name, Name, Name (LEAN Coach Name)			

1. Background / problem definition

What is the background for establishing this improvement group?

- What is the problem and how has it occurred?
- Why is this important?
- Formulate as a demand!

2. Current Situation

What is status for current situation for the improvement project?

- How big is the problem? System / process of the current situation (if relevant)
- Collect data / measurements, facts, zero points (if relevant)
- What are the consequences?
- Diagram showing the situation or process (if applicable)

3. Wanted Situation / Target

Establish "SMART" targets

- Specific, measurable, assignable, realistic, time-bound (SMART) targets, flow diagrams etc.
- Time
- Estimate total costs
- Describe expected benefits, measured in terms of financial price of 255NOK, if implementation

4. Root Cause Analysis

What is the root cause(s) of the problem?

- Use a simple problem analysis tool (e.g., Fishbone diagram, 5-Why, cause/effect network) to show cause-and-effect relationships

For customer(s) / action plan below:

- It is necessary to describe whether we have chosen a solution for further development and implementation, or if an analysis of multiple alternatives is needed before one is chosen
- Describe the work to be done, with the early adoption in our software portfolio, (SIS, Software, smart) and/or changes in Comply?
- Will it be necessary with training of employees during the implementation process?
- Reference to (type) apply can be done as part of point 6 below.

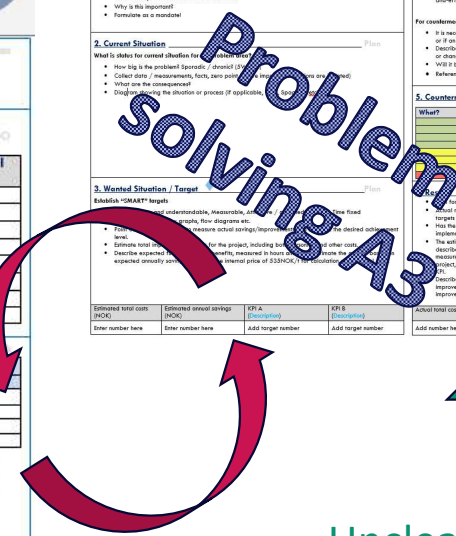
5. Countermeasures / Action plan

What?	How?	When?	Who?	When?

6. Standardization

- What have we learned that does or does not improve the standard?
- In the light of the learning, what should be further done?
- How should the way we apply our standards be adjusted to reflect what we learned?
- How do we need to train people on the new standard?
- If changes are made in a process, then describe briefly where this is to be found in Comply.

Estimated total costs (NOK)	Estimated annual savings (NOK)	KPI A (Description)	KPI B (Description)
Enter number here	Enter number here	Add target number	Add target number



Unclear situation / problem

Clear scope / defined development project

OBEYA meetings

- weekly status meetings of each CIT

- All improvement work is driven by self motivation in small groups (Continuous Improvements Team)
- Weekly reporting (Obeya room) – Status & progress
- High focus on (A3):
 - Present situation
 - Wanted situation
 - Implementation / KPI`s



CIT-24: From Engineering to Job Card

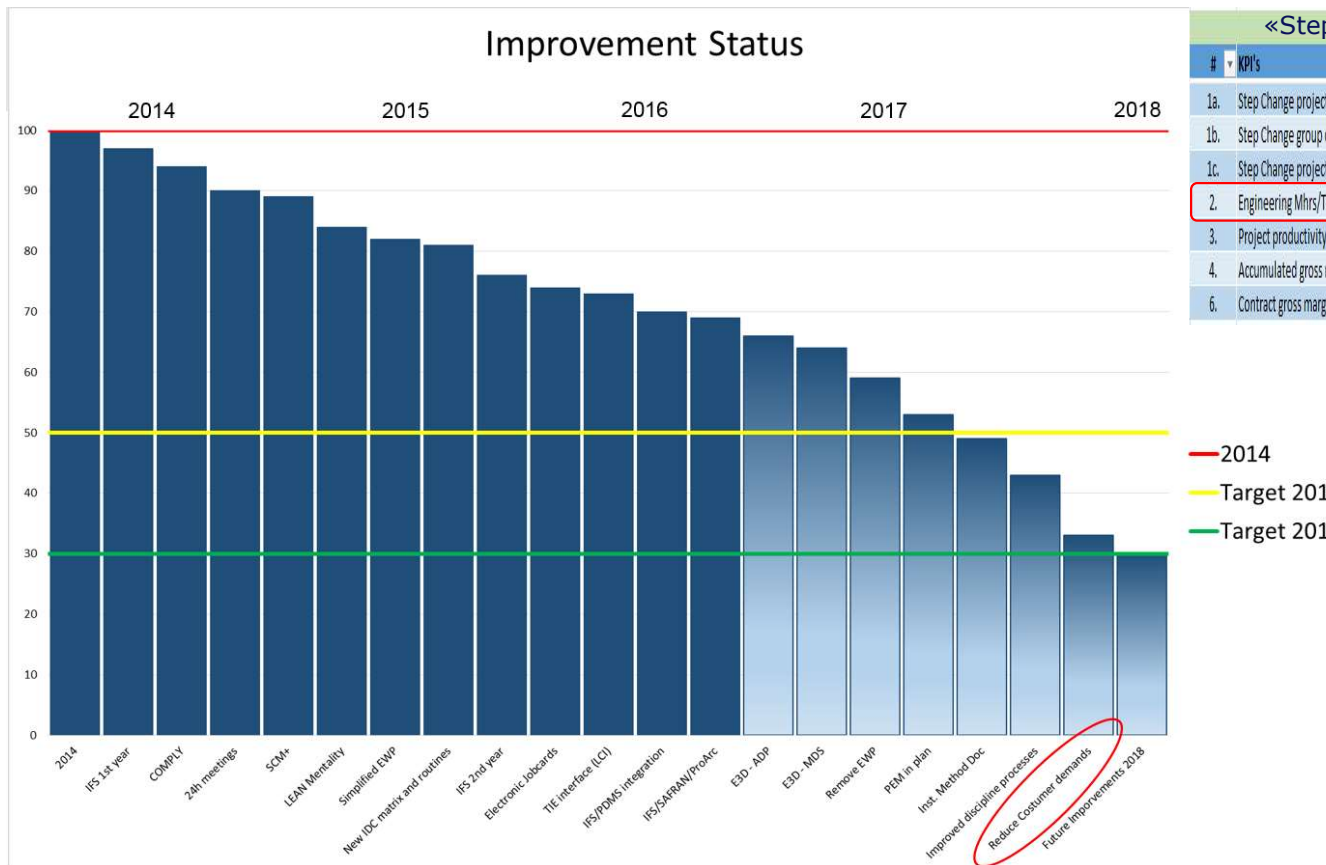
1. Background

Plan

What is the background for establishing this improvement group?

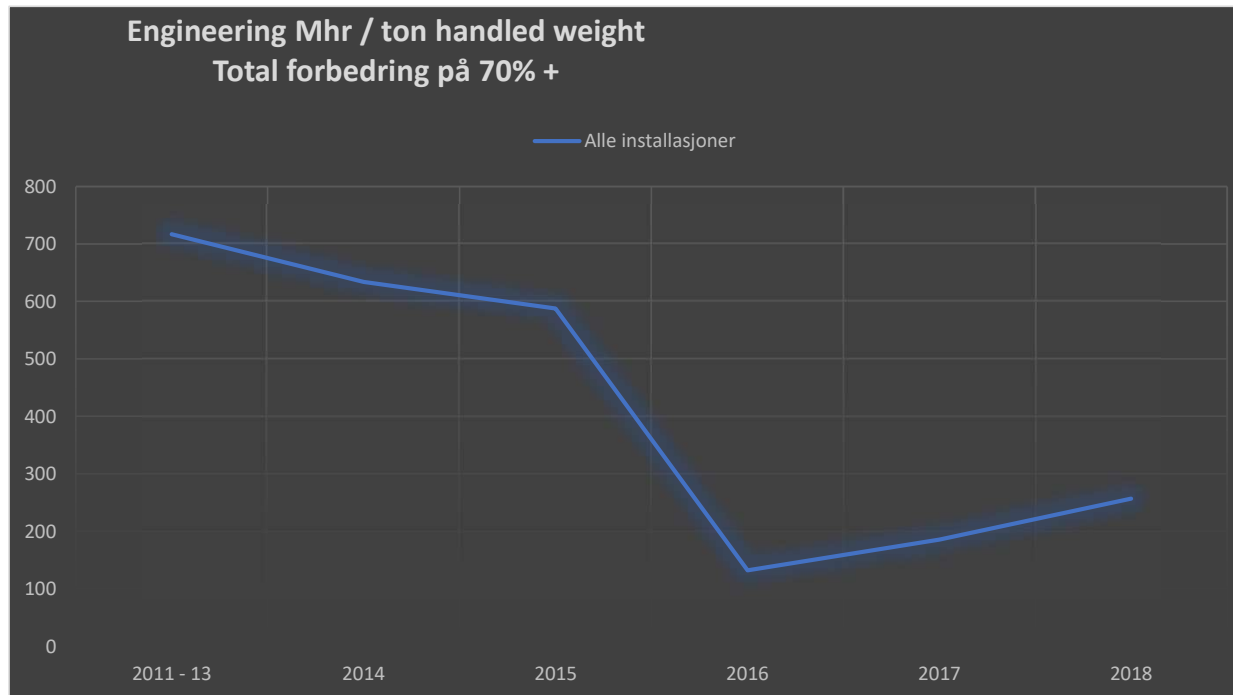
- Markedsituasjonen krever besparelser innen engineering, og prosessen fra engineering til jobbkort er veldig tidkrevende.
- Dette er en stort sett en intern leveranse, så her kan vi selv bestemme mellomproduktene.
- Effektivisering i prosessen med å lage jobbkort øker vår engineeringproduktivitet, som videre bidrar til økte prosjektmarginer
- Mandatet til CIT gruppen er å redusere antall ledd i arbeidsprosessen, automatisere jobbkortproduksjon og legge ansvaret for sluttproduktet over på engineering.

Historic and planned development



«Step Change» KPI's		Periode 11-2018				
#	KPI's	Target	Septemb	Oktober	Novemb	Deadline for achievement
1a.	Step Change project progress (% complete)	100% on schedule target	94,0 %	94,3 %	96,7 %	Continuous
1b.	Step Change group completion (closed groups acc. plan)	100% on quarterly scheduled closed groups	65,8 %	N/A	N/A	Continuous
1c.	Step Change project progress (Budget vs actual cost)	100% on budget	95,0 %	98,0 %	98,8 %	Continuous
2.	Engineering Mhrs/Tonnes (Statoil MM)	50-70% reduction (2016-2018 vs 2010-2015 by Q2-2018)	72,1 %	72,0 %	71,4 %	Q22018 / Q42018
3.	Project productivity (Statoil MM)	< 0,85 Q42018	0,70	0,70	0,70	Q42018
4.	Accumulated gross margin prefabrication (Statoil MM)	≥ 0 MNOK Q42018	-1,34	-1,71	-1,85	Q42018
6.	Contract gross margin (MM)	≥ 14% Q42018	10,0 %	11,0 %	6,8 %	Q42018

Productivity improvement



Savings using mobile terminal warehouse



Dagens løsning Totalt 22 timer

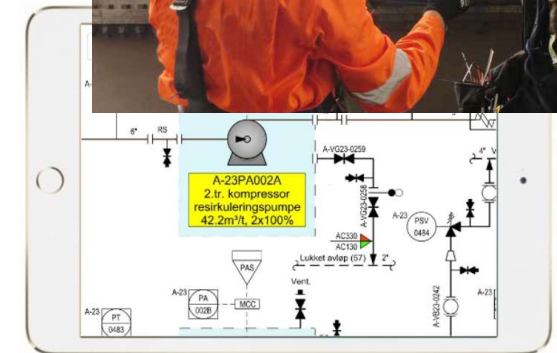


Estimert ny løsning Totalt 12,5 timer



Faktisk ny løsning Totalt 8,4 timer

62% besparelse

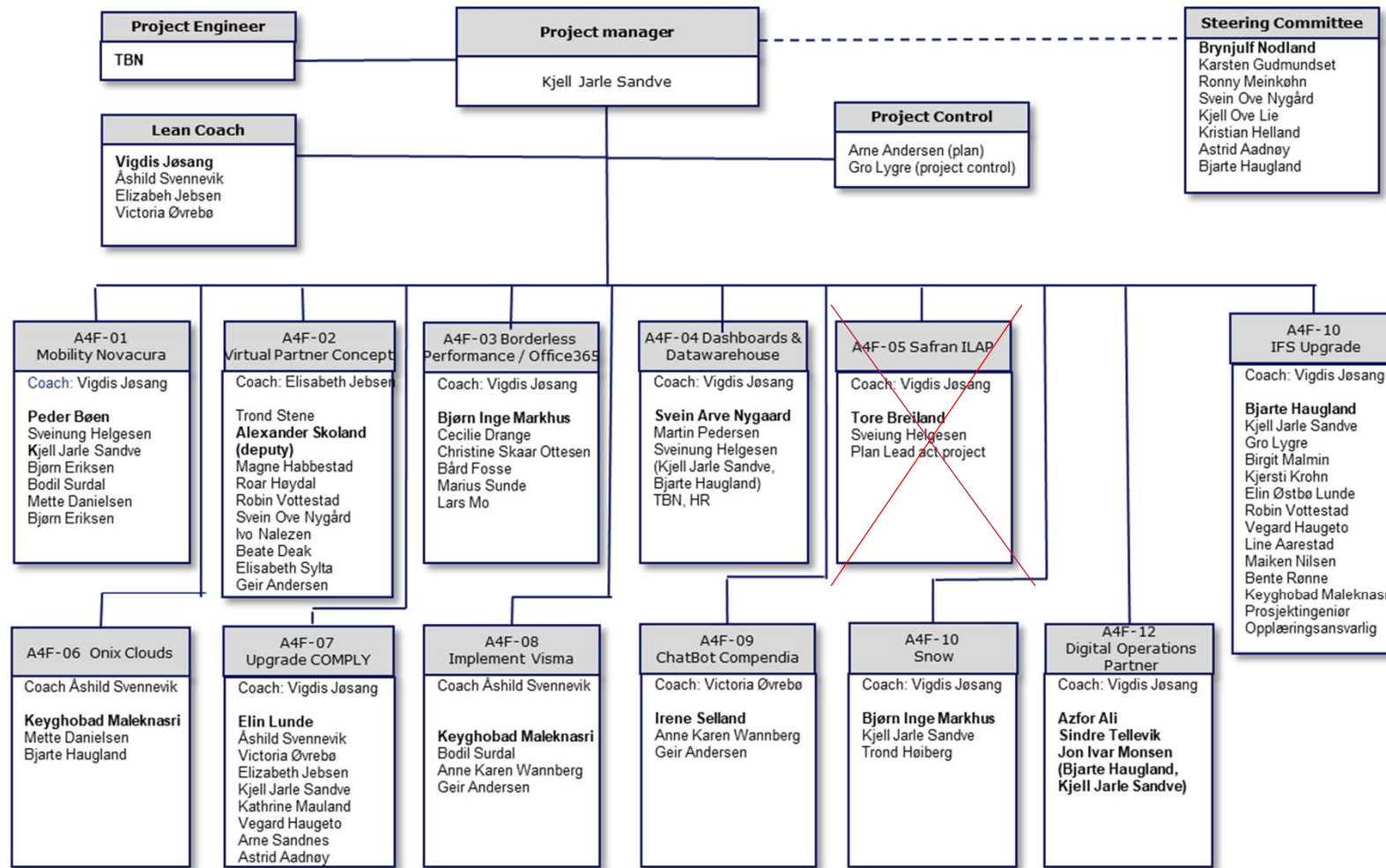


LEAN award to Apply

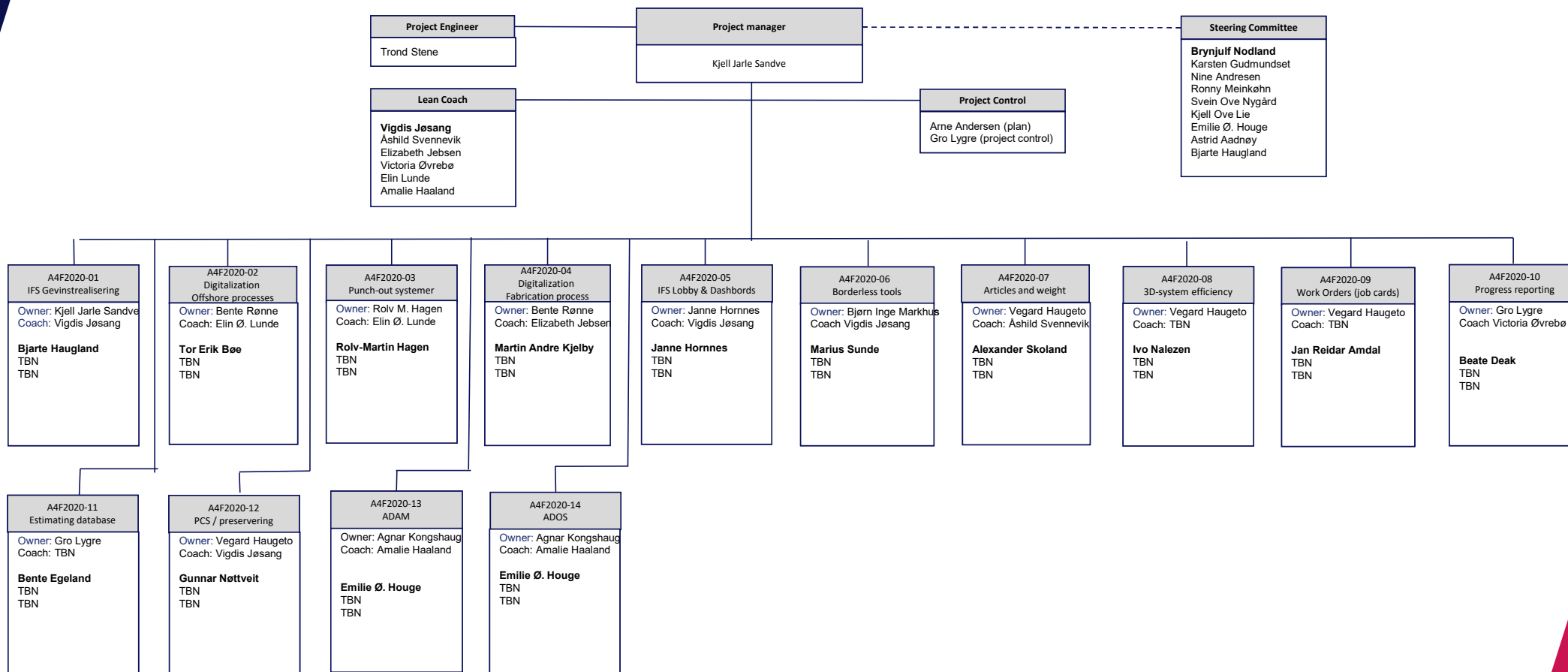
- «TPM-Lean Inspirasjonspris 2015»
- «TPM-Lean Produktivitetspris 2019»



A4F 2019 (Apply4Future) Organization

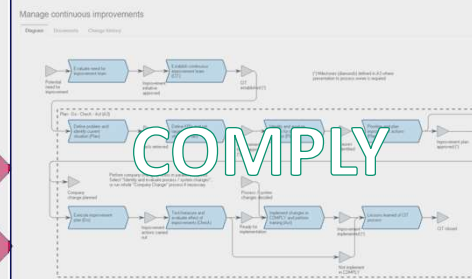
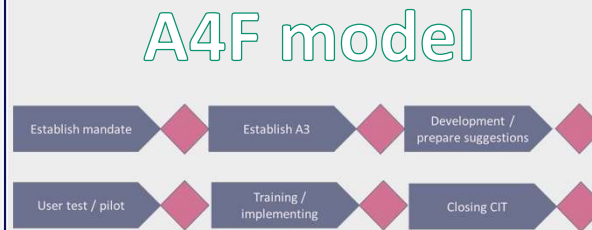


A4F2020 org



Agenda Lean Intro A4F2020

1. Project Execution Model



Activity ID	Activity Description	Aktivitet	Milepel	% progress
HAL200001	Establish mandate	x	x	5
HAL200002	Improvement initiative approved, mandate approved	x	x	10
HAL200003	Establish A3 and KPI set	x	x	20
HAL200004	Improvement plan approved, A3 approved / KPI set approved	x	x	20
HAL200005	IT scope/external partner definition meeting	x	x	20
HAL200006	Development/improvement A3 has defined	x	x	20
HAL200007	IT partner and other external partners informed and scope defined	x	x	20
HAL200008	Establish and execute implementation plan	x	x	75
HAL200009	Final handover to process owner/QA	x	x	75
??	Implementation completed	x	x	100
??	CIT closing activities	x	x	100
??	CIT closed	x	x	100
??	Measure KPI and evaluate effect of improvement	x	x	100

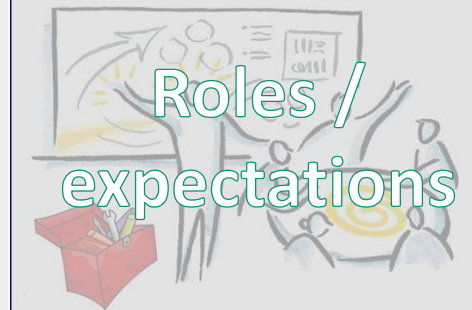
2. Basic tools for the development work

The screenshot shows a software interface for creating a 'Mandate'. It includes fields for 'Mandate*', 'Mandate', 'What is the task?', 'Suggested budget/savings', 'Estimated profile', and 'Approved by'. A large green 'Mandate' text is overlaid on the interface.

The screenshot shows a software interface for 'IMPROVEMENT / DEVELOPMENT PROJECT CHARTER'. It includes sections for '1. Problem description', '2. Objectives', '3. Scope', '4. Stakeholders', '5. Risks', and '6. Benefits'. A large green 'A3' text is overlaid on the interface.

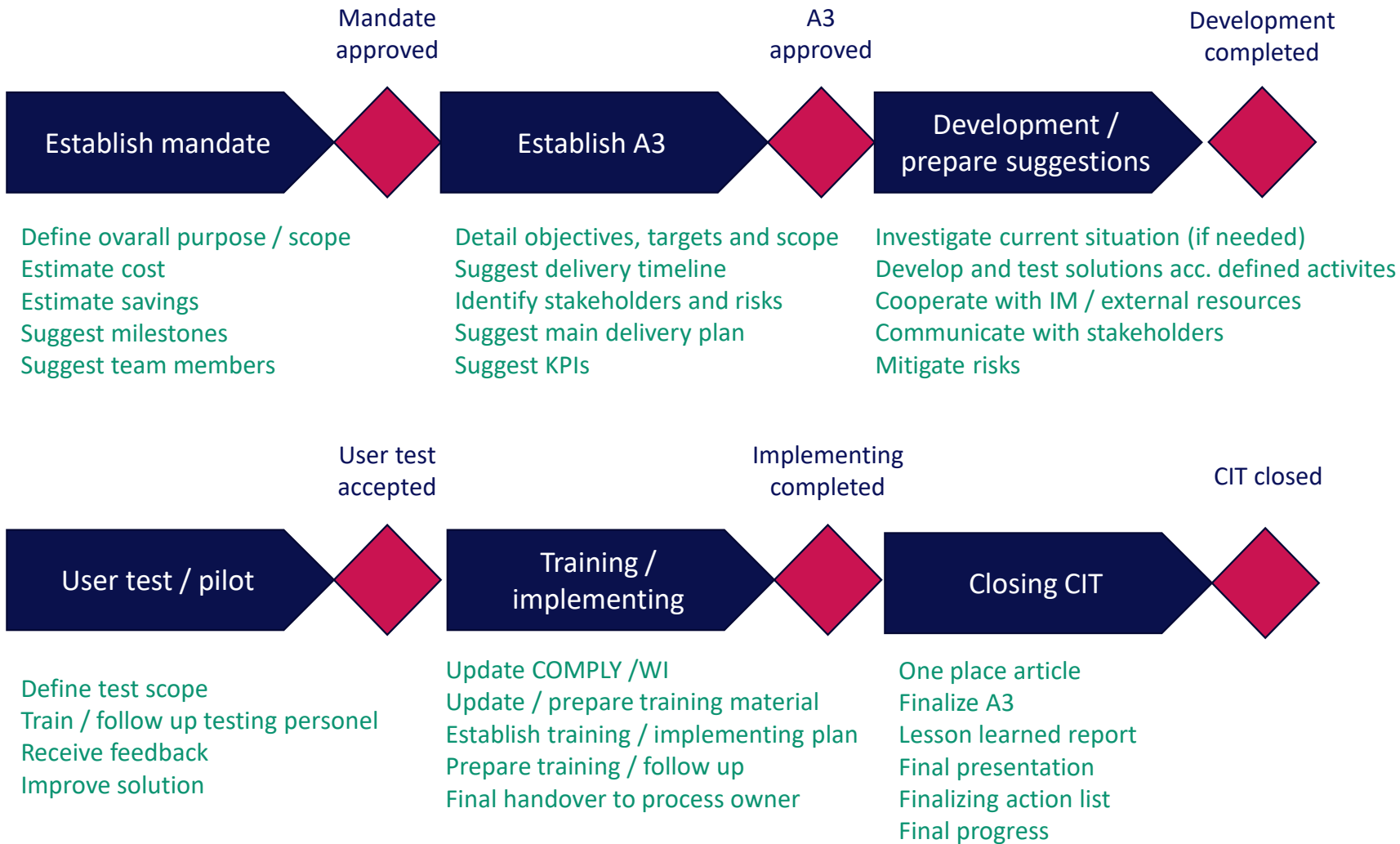
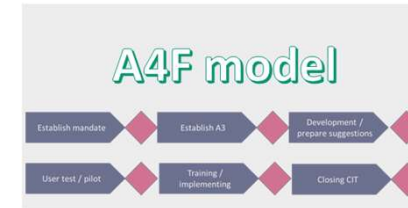
ID	Date	Activity	Problem / Problem / Description / Subproblem	Owner	Responsible	Due date	Status
1	HAL200001	Establish mandate	Report CIT in CIT overview list / registration chart, create document	Project Manager	Project Manager		OK
2	HAL200002	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
3	HAL200003	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
4	HAL200004	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
5	HAL200005	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
6	HAL200006	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
7	HAL200007	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
8	HAL200008	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
9	HAL200009	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
10	HAL200010	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
11	HAL200011	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
12	HAL200012	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
13	HAL200013	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
14	HAL200014	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
15	HAL200015	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
16	HAL200016	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK
17	HAL200017	Establish A3	Define A3 and action list	Group Manager	Group Manager		OK

3. How to success



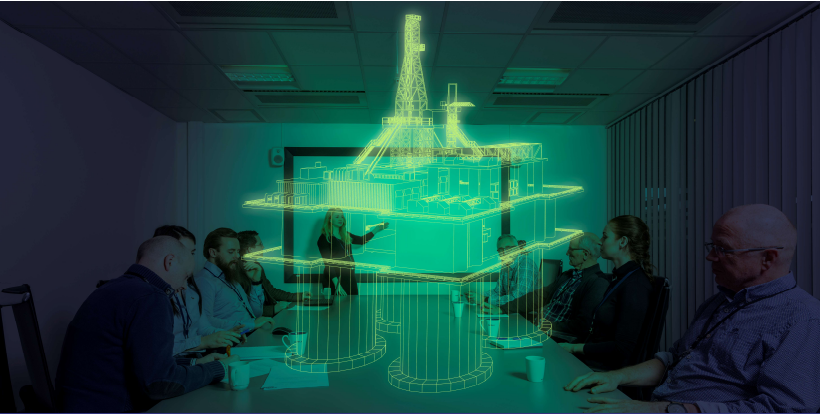
Teams vs IFS

A4F «project execution model»



Risiko

- Tilgjengelighet på dedikerte ressurser
- Implementering og eierskap
- Noen initiativer mot eksterne ressurser vi ikke kan styre tilgjengelighet på
- IM ressurs fordeling
- Normal drift skal ivaretas ved siden av forbedringsarbeid
- IT partner ikke utfører nødvendig arbeid kjapt nok



Vår forbedringskultur

- jakten på optimale løsninger

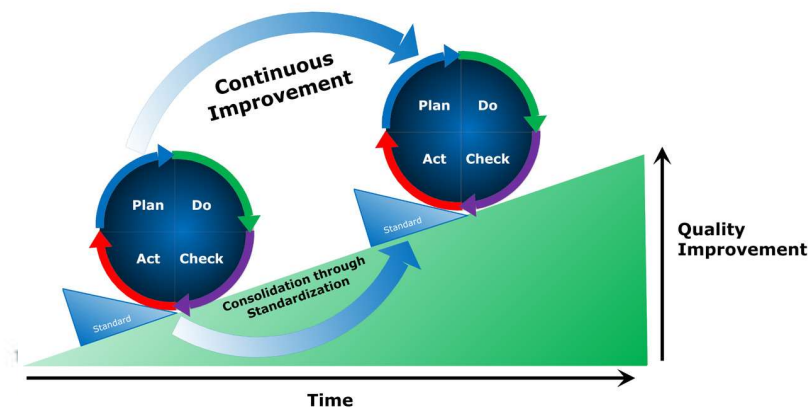
- En forutsetning for at APPLY får nye oppdrag i fremtiden!
- Vi må hele tiden tenke nytt!
- Kunden vil se at vi er fleksible og dynamiske – nye løsninger!
 - Hvordan kan vi – og kunden - jobbe smartere?
- Automatisering og forenkling av prosesser!
- Men uten at det går ut over sikkerheten og kvaliteten i våre leveranser!

Fravær av feil

Optimale løsninger

Forventninger som innfris

APPLY BEST PRACTICE



APPLY[®]

Will to succeed