



Collaboration Onshore/Offshore at ConocoPhillips Norway

**A Look Behind the Scenes in an
Onshore Operations Centre (OOC)**

Speaker Presentation

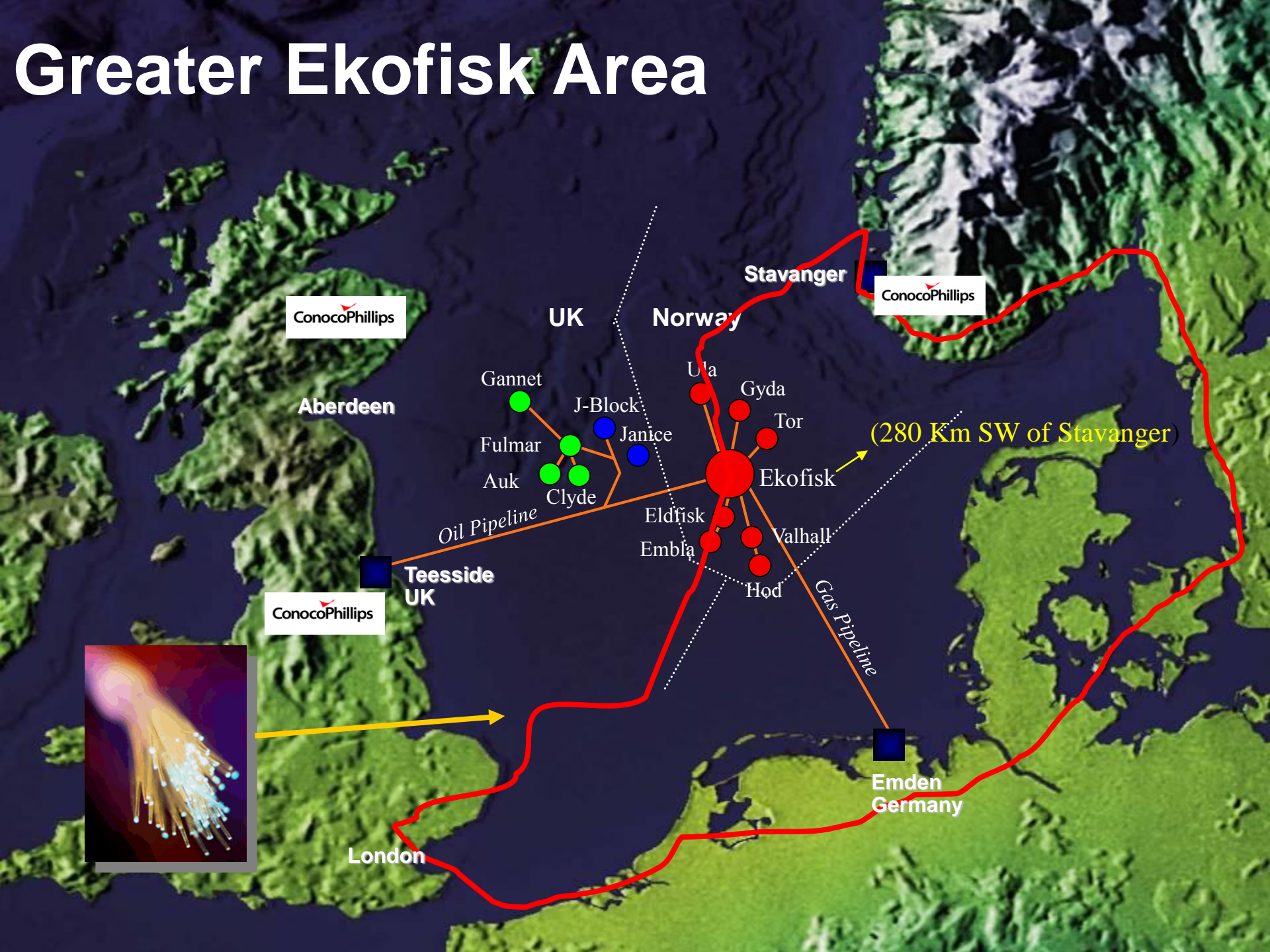
- Henning Lillejord
ConocoPhillips Norway
- Co-speakers:
 - Børre Heggernes
CTO, Amitec AS (Norway)
 - Mike Purcell
Director of process industries
Omicron (USA)



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Greater Ekofisk Area



EKOFISK CENTER



The Onshore Operations Center

- Greater Ekofisk Business Center has implemented integrated operations work processes, and established:
 - Onshore Drilling Centre (ODC) in January 2003
 - Onshore Project Centre (OPC) in December 2003
 - Onshore Operations Centre (OOC) in December 2004.
- Tracked benefits exceeds total investments **15x**

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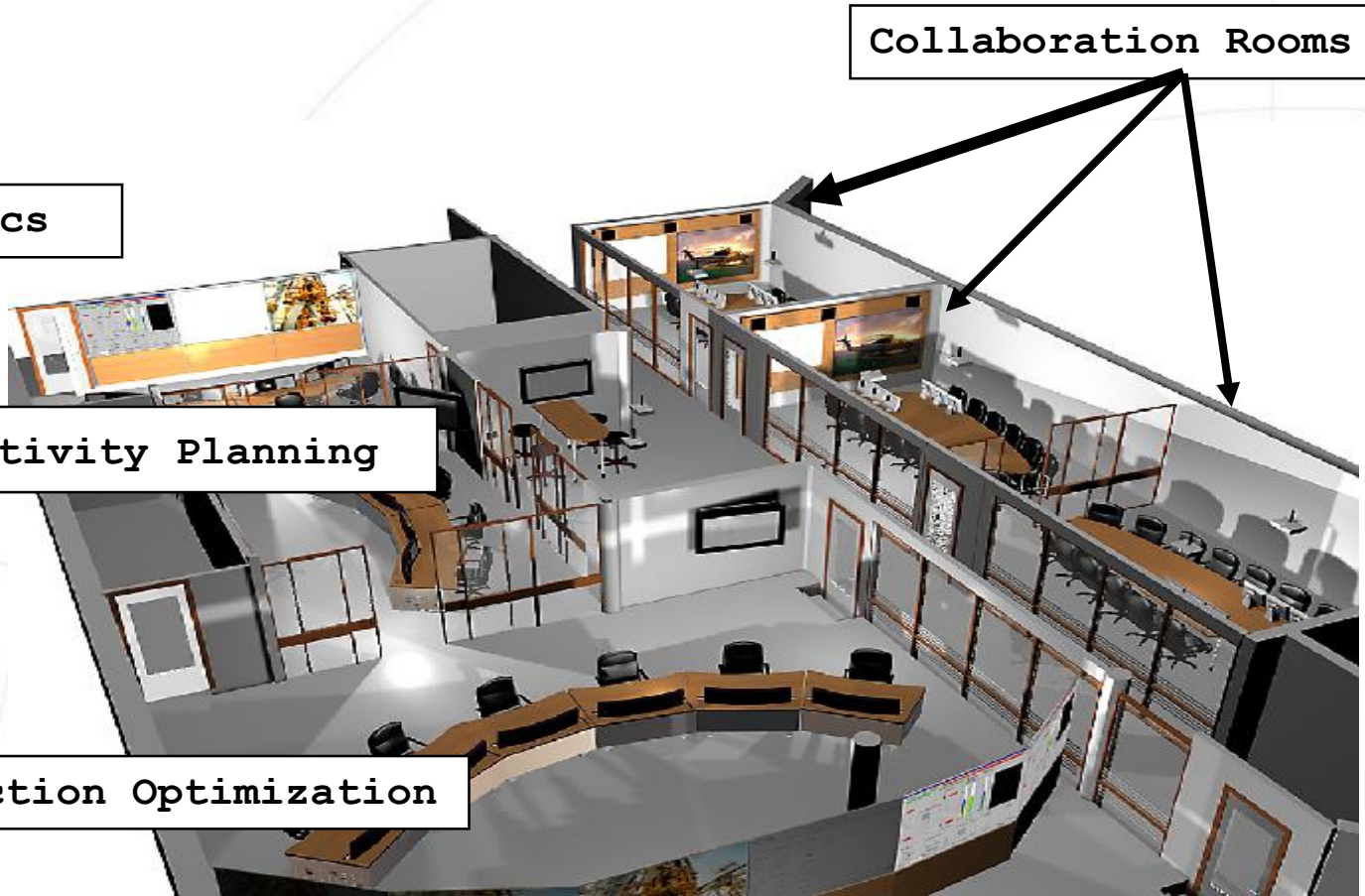
The Onshore Operations Center

Logistics

Collaboration Rooms

Maintenance & Activity Planning

Production Optimization



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OOC Video

- 2 min video showing OOC in action

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Collaborations & Tools

- Integrated operations is based on the application of collaborative work processes and tools to facilitate:
 - Real-time information sharing, collaboration and decision making between onshore and offshore organization, and
 - Real-time interaction with other global COP offices and third parties.

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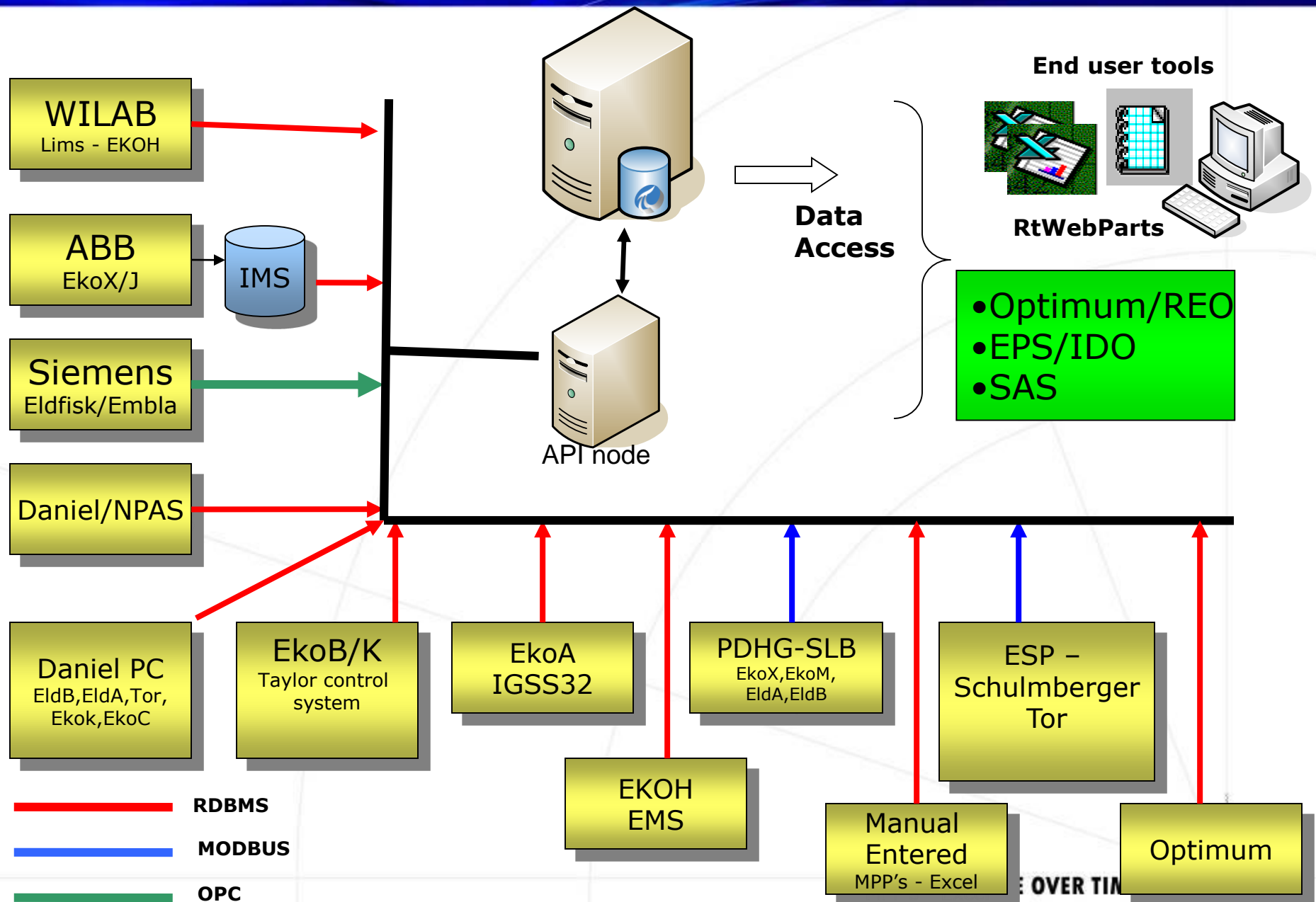


Systems and Products used

- 10K PI Enterprise server
 - ACE/DAP
- Approx. 100 PI-PB users
- RtWebParts
- SAP
- BI products from SAS Institute
- ...and many others...

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The Colibri Project



- One of the tools in OOC
- POC in Nov -05
- Production Deployment 2Q2006
- International team
 - Customer/Amitec (local VAR)/Omicron

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The Vision of Colibri

- Collaboration between onshore and offshore
- Achieving production, maintenance and efficiency targets
- Automated real-time warnings on condition monitors and alerts
- Consolidated views into real time production and maintenance data
- Leverage existing technology platforms such as Microsoft Sharepoint and OSIsoft tools

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Challenges

- Budget cycles and approval processes
- Positioning of RtPM vs. Other on-going software projects at COPNO
- Gain access to key personnel
 - Always busy

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Colibri Key Functionality

- Real-time Collaboration
- Real-time Data Updates In a Browser
- Web-Based Comments/Annotations
- Consolidated Alerting and Alarm
- Integrated and Contextual Views of Equipment Data

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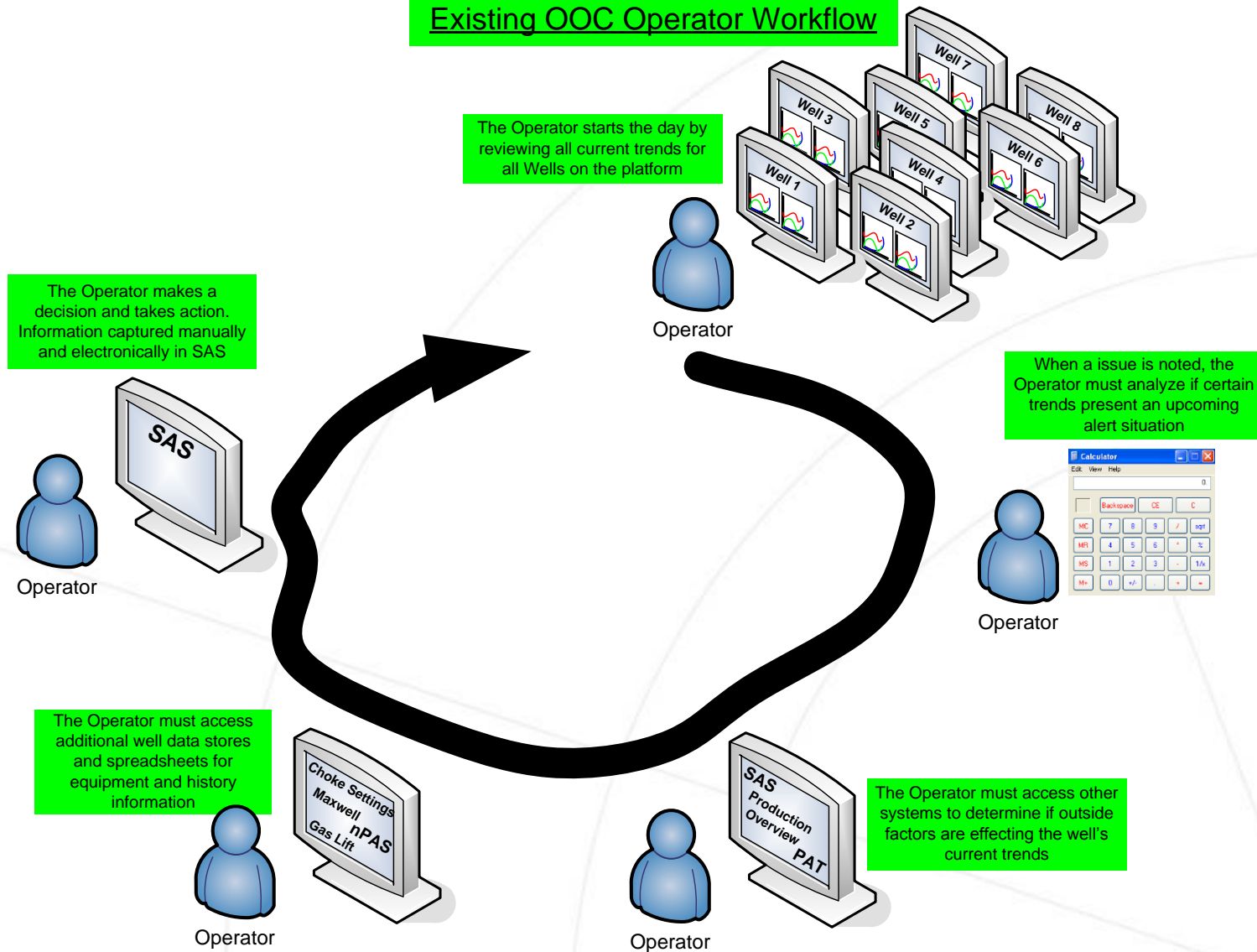
Colibri Users

- OOC
- Offshore Operators and Supervisors
- Field Engineers
- Process Engineers
- Maintenance

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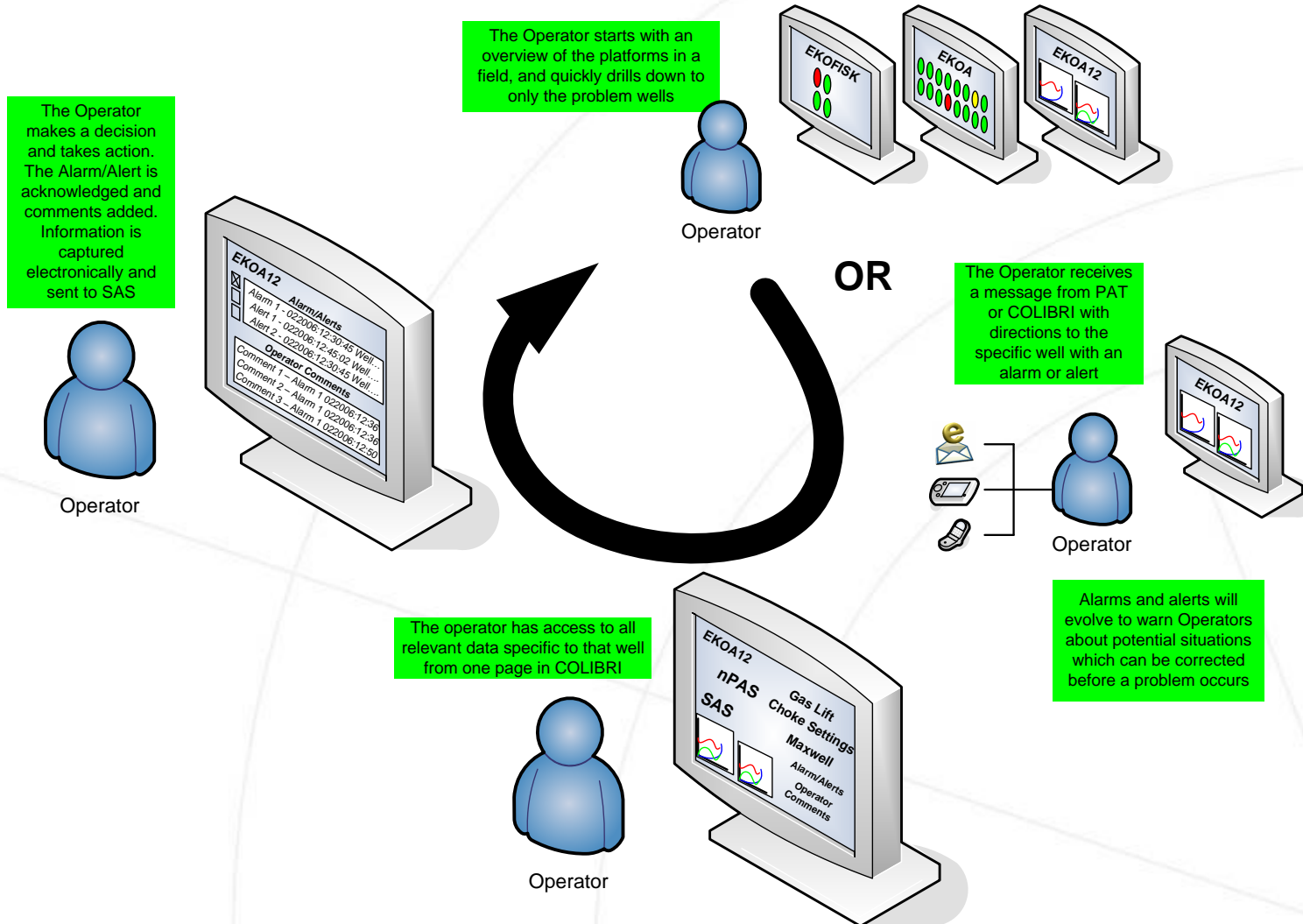
Existing OOC Operator Workflow



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Future OOC Operator Workflow



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DEMO

- What you will see:
 - POC only. Production environment to be deployed before summer 2006

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Lessons Learned

- Importance of consistent enterprise real-time platform
 - Single version of the truth
 - Simplified topology/architecture
- Microsoft SPS works today. Version 3.0 (Office 12) will be even better
- Work processes around technology are often missing

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Tangible Benefits

- Maintenance and modifications improvement
- Avoiding equipment failure
- Avoiding production loss due to better combination of work
- Increasing daily production through better planning

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