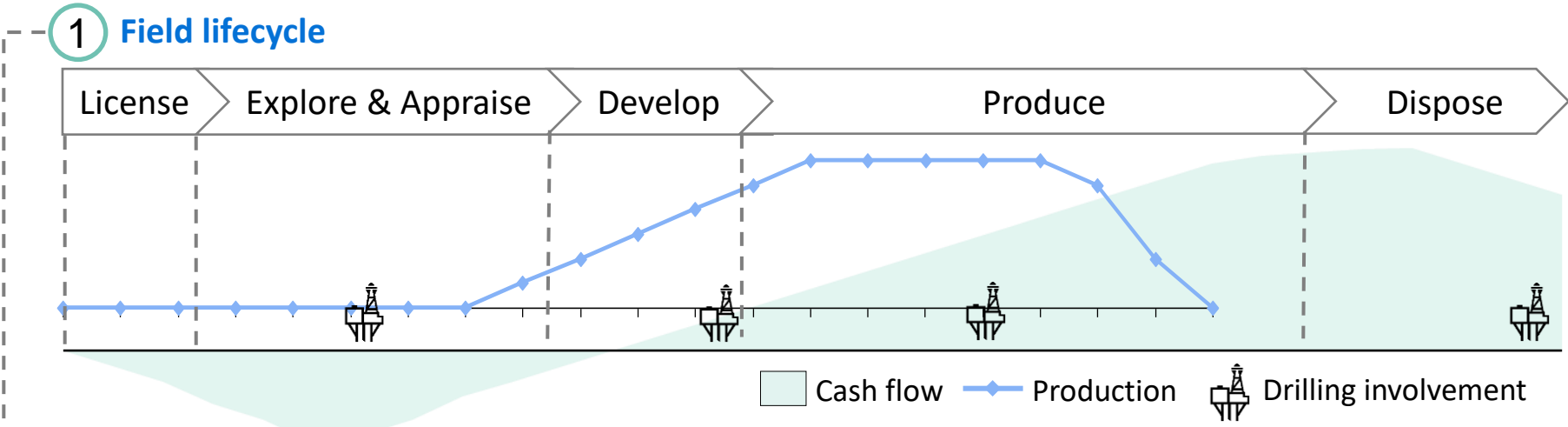


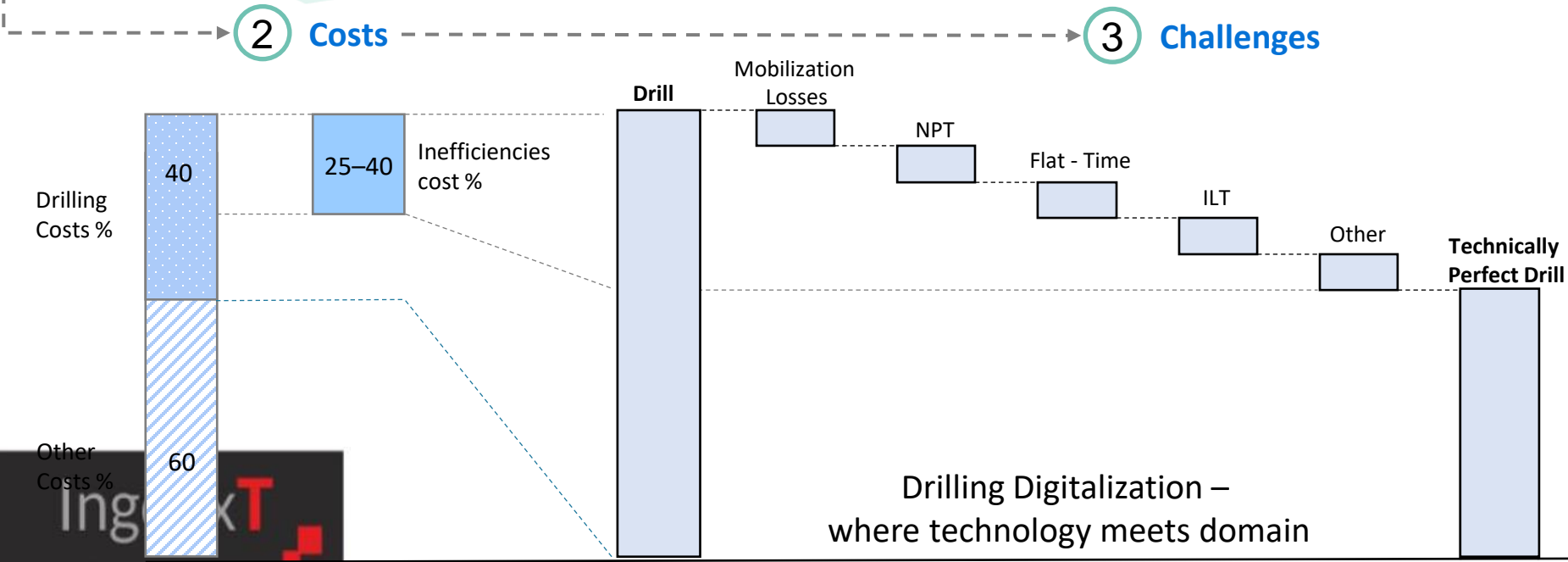
Ingenx Drilling Incident Management



Drilling historically accounts for near 40% of the cost of developing and exploiting reserves across the oilfield lifecycle. About 25 to 40% of drilling time and cost is inefficiencies

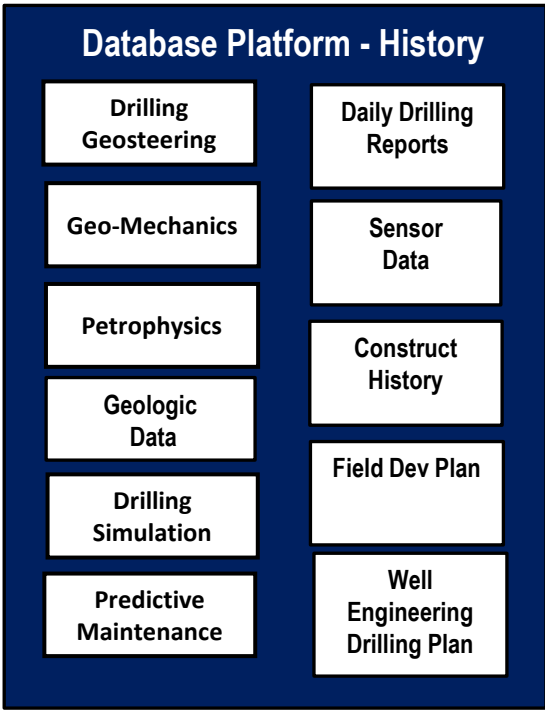


- Cost of well construction:
- Land drill can cost upwards of \$.5-2.0 million
 - Offshore drill can cost more than \$100 million

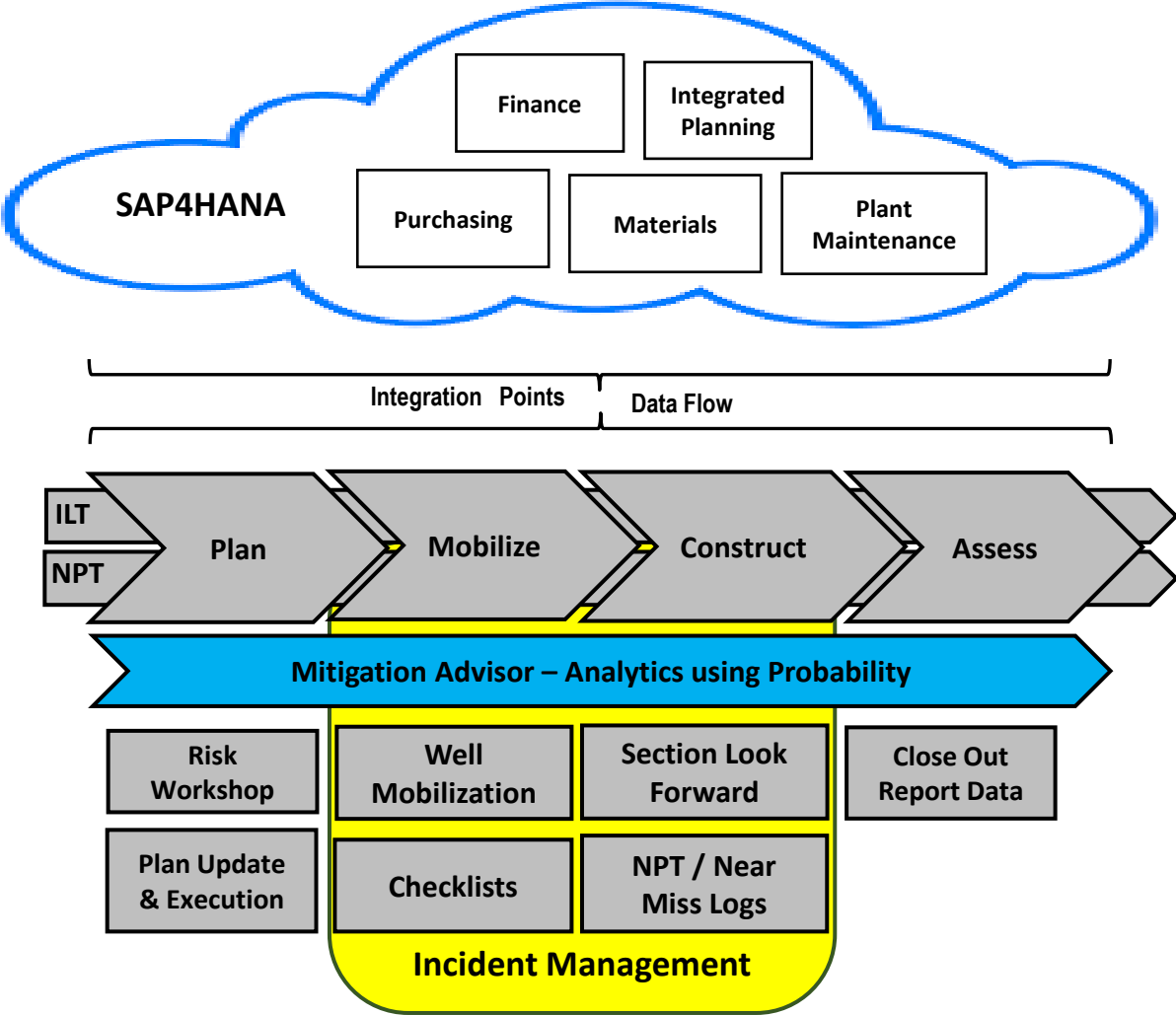


- IWECO solution helps reduce inefficiencies by means of:
- Monitor the risk
 - Prepare for well construction
 - Manage construction process
 - Mitigate inefficiencies

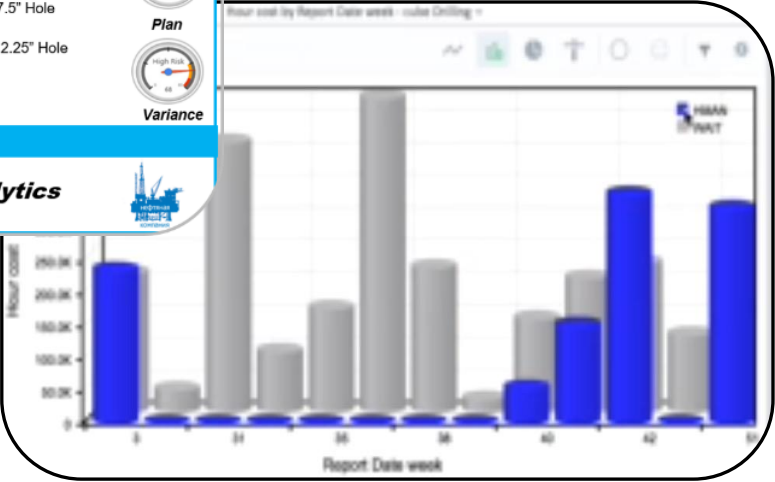
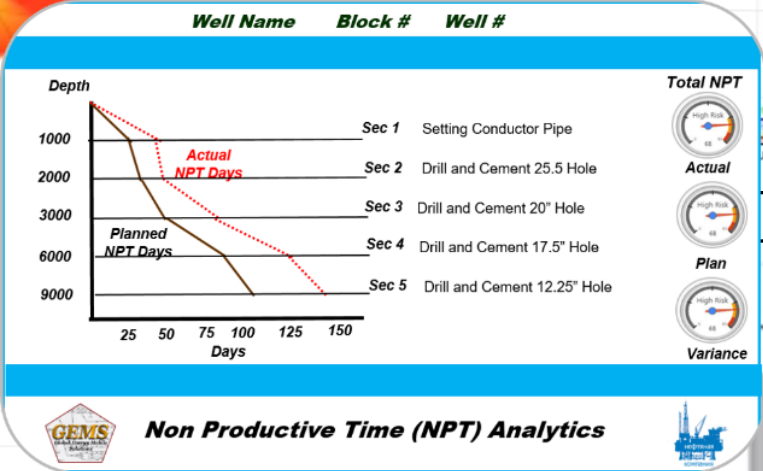
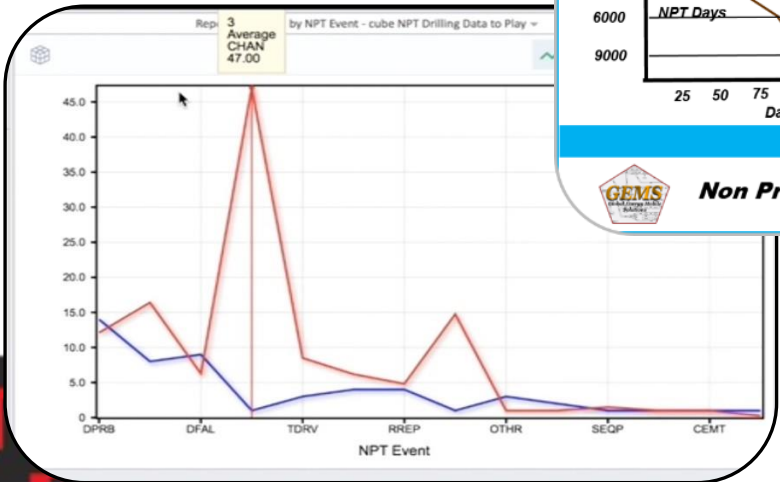
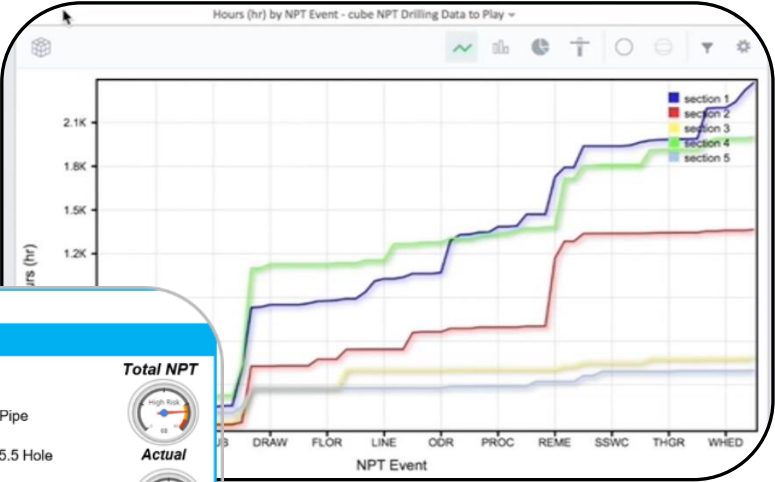
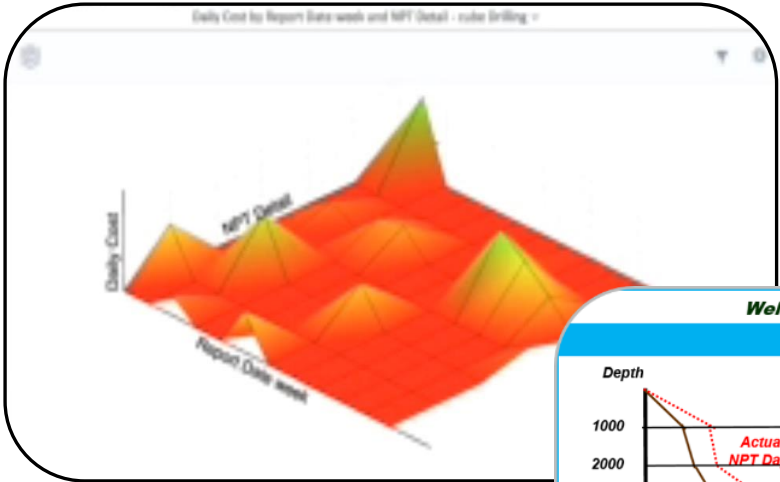
Drilling Incident Management Using Probability



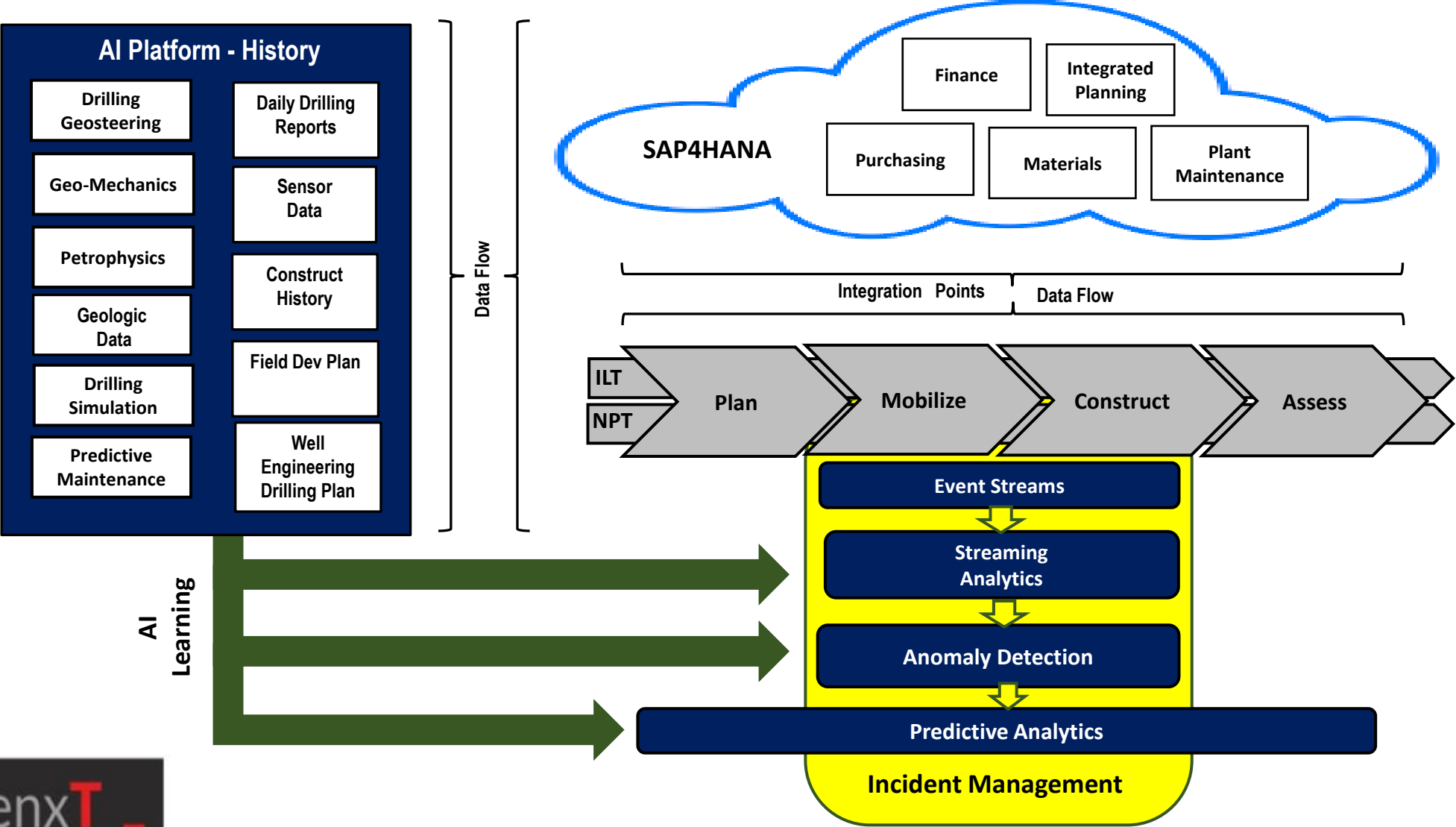
Data Flow



Example Analytics: mobile analytics from data from 10 wells drilled in the same geology and depths somewhere in the world



Drilling Incident Management Using Prediction and Artificial Intelligence



Benefits of Drilling Incident Management using Probabilistic, Prediction/Artificial Intelligence



Completion of drilling per rig increase



Knowledge and experience never leaves the premises



Easy to introduce into the company



Less equipment failure



Unified information flow



Increase precision of the data within the reports



HSE events reduction



Reduce the reaction and decision making period



More on-time drilling



Allow real lessons learned

IngenxT



Drilling Incident Management Minimum Projected Economic Benefits

Well construction on average 20-60 days	\$500,000 - \$1,500,000
Conservative Incidence Management	
“Average” NPT rate of 20%	\$100,000 - \$300,000
"Average" indicator of ILT 5%	\$25,000 - \$75,000

- ❑ Accordingly, by reducing the rate of NPT and ILT by only 4% and 2%, respectively, we reduce the cost of the well construction by \$ 30,000 - \$ 90,000
- ❑ In addition - reduce construction time, unplanned events and safety risks.
- ❑ The potential to reduce construction time and the inefficiency of the mobilization process may allow an additional material amount of well constructions per year from the drilling rig.
- ❑ While drilling **600** wells per year, the ANNUAL minimum savings are **\$18,000,000 - \$54,000,000 (Estimated drilling constructions per year)**