



Transformer vos données en information décisionnelle

Présenté par : **Max Mckay, ingénieur de systèmes**
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Quel est le statut?

Où est le problème?

Que dois-je faire?

L'information permet de prendre de meilleures décisions.

Information décisionnelle – un aperçu

OSIsoft | Esri | Oil and Gas Dashboard

Wells

Search

- CE-08300011
Flow Rate: 250.92 k sft3/h
Flow Tubing Pressure: 181.21 psig
1/6/2014 12:19 PM
- CE-08300073
Flow Rate: 362.30 k sft3/h
Flow Tubing Pressure: 99.26 psig
1/6/2014 12:19 PM
- CE-08300083
Flow Rate: 302.46 k sft3/h
Flow Tubing Pressure: 167.81 psig
1/6/2014 12:19 PM
- CE-08300101
Flow Rate: 247.43 k sft3/h
Flow Tubing Pressure: 247.27 psig
1/6/2014 12:19 PM

Flow Rate

250.92

Flow Tubing Pressure

181.21

psi

Production KPI

295.17 k sft3/h

Cat Canyon Operations Dashboard Map

GeoFences

(2) Add Search...

GeoFenceId	Category	Name
Danger Zone 1 Items		
DangerousArea/Danger Zone	DangerousArea	Danger Zone
Drilling Activity 1 Items		

Alerts

Alerts (8) Search...

Incident Name	Resource	Resource Name	Description	As
Cumulative 8 Items				
DangerousArea	Roustabout Miguel		Ongoing for last 54 seconds.	
DangerousArea	Roustabout Miguel		Ended at Mon Jan 06 17:18:05 UTC 2014 and lasted for 36 seconds.	
DangerousArea	Roustabout Carol		Ongoing for last 3 minutes and 40 seconds.	

PI CoreSight

Bottom Hole Pressure

Trucks

- Roustabout Miguel
Fuel: 0.00 gal
Speed: 2.92 mph
- Electrician Bob
Fuel: 0.00 gal
Speed: 2.69 mph
- Welder Joe
Fuel: 68.22 gal
Speed: 10.84 mph
- Supervisor Lauren
Fuel: 16.52 gal
Speed: 26.13 mph

Truck Detail

Roustabout Miguel

This truck has consumed 0.00 gallons and has driven 316,019.69 miles

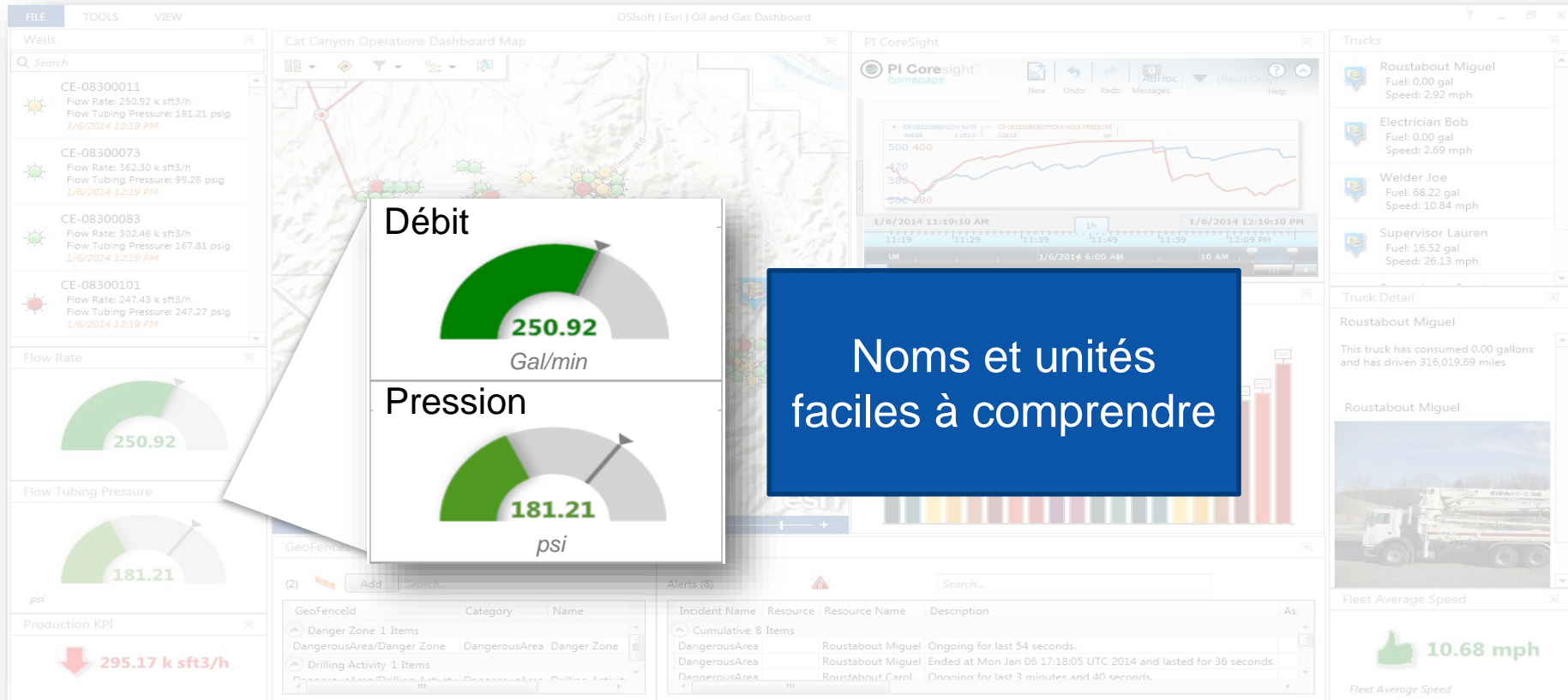
Roustabout Miguel

Fleet Average Speed

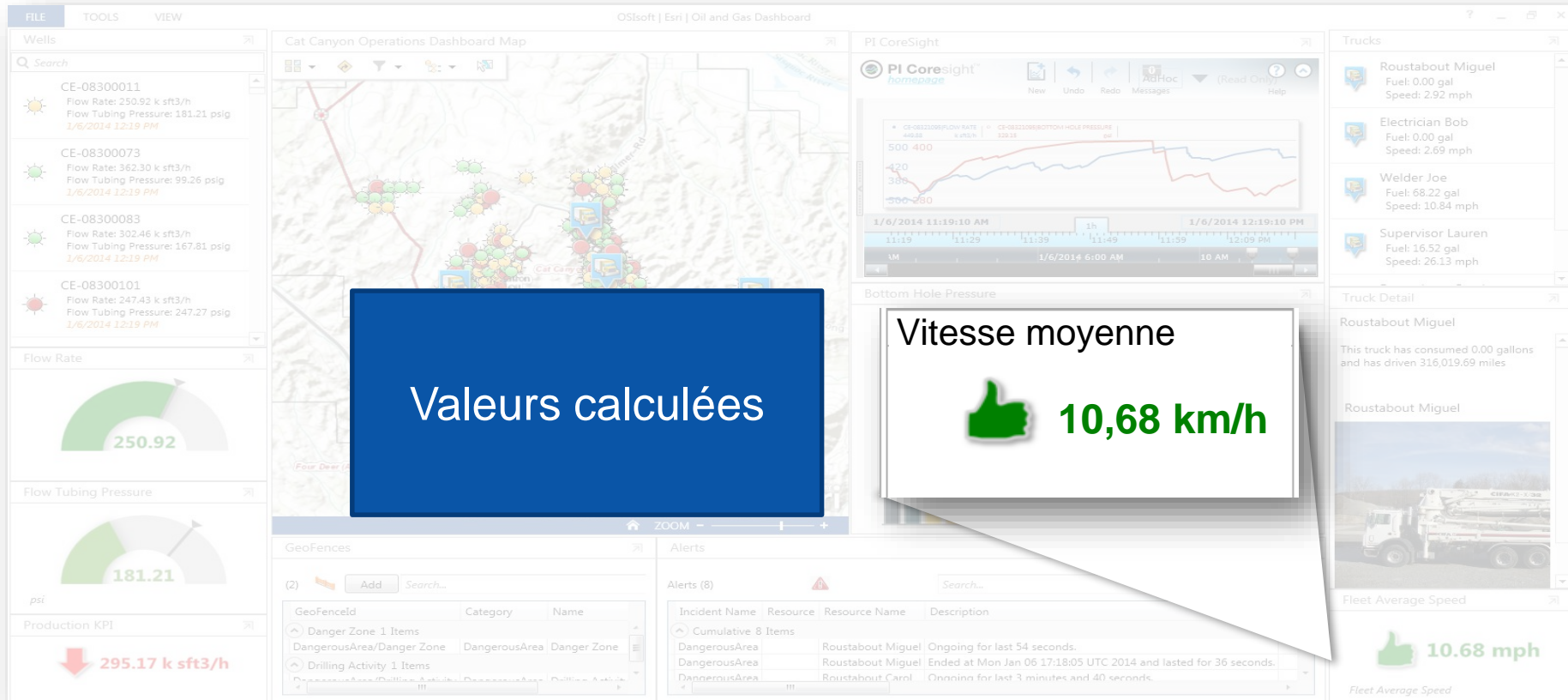
10.68 mph

Fleet Average Speed

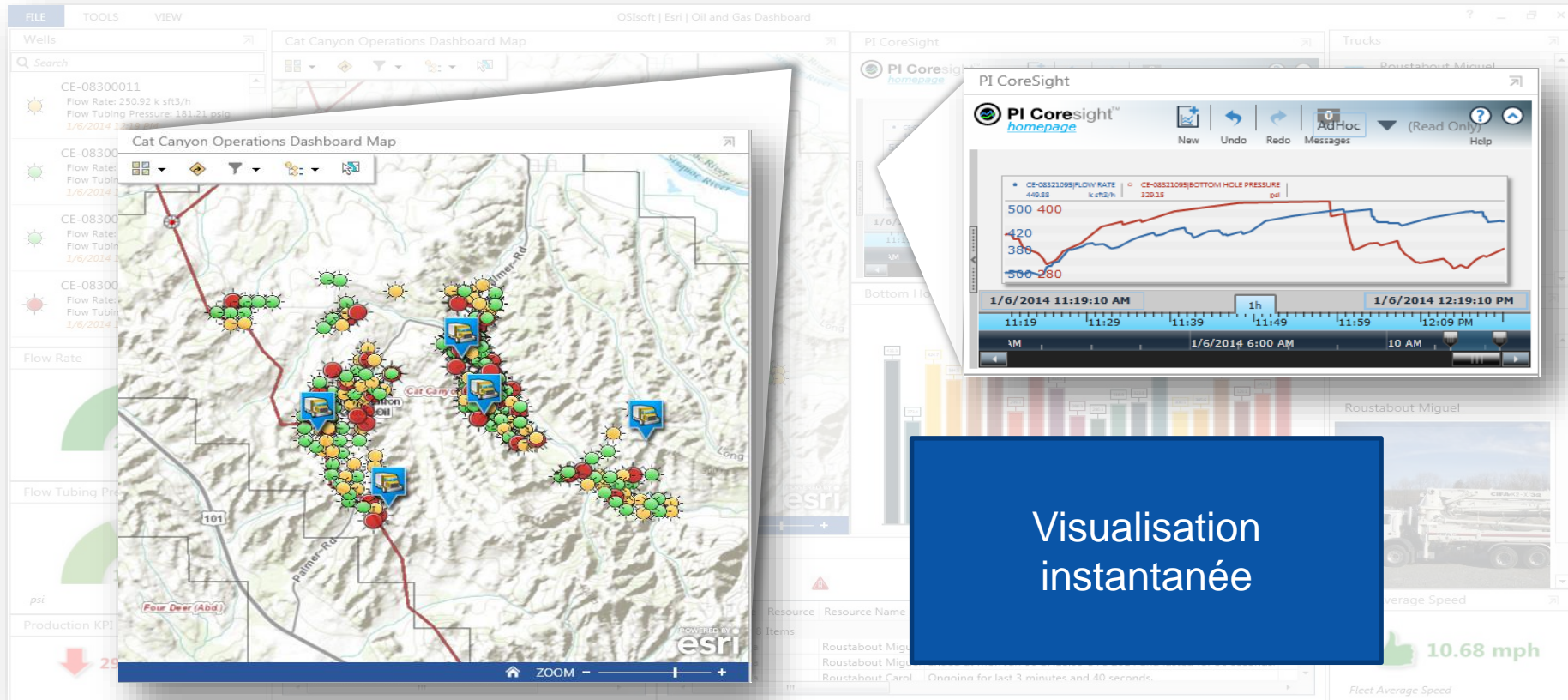
Information décisionnelle – un aperçu



Information décisionnelle – un aperçu

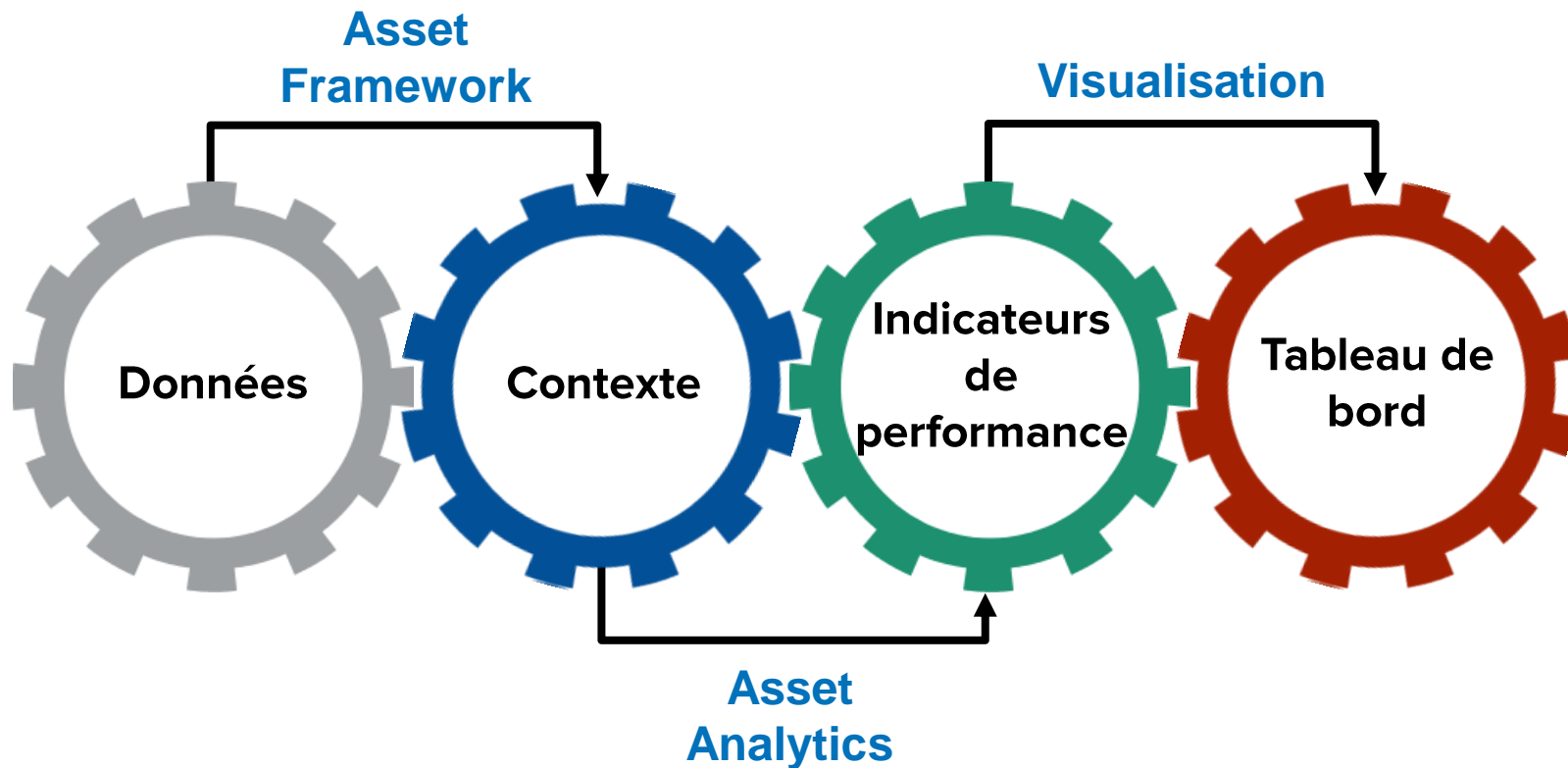


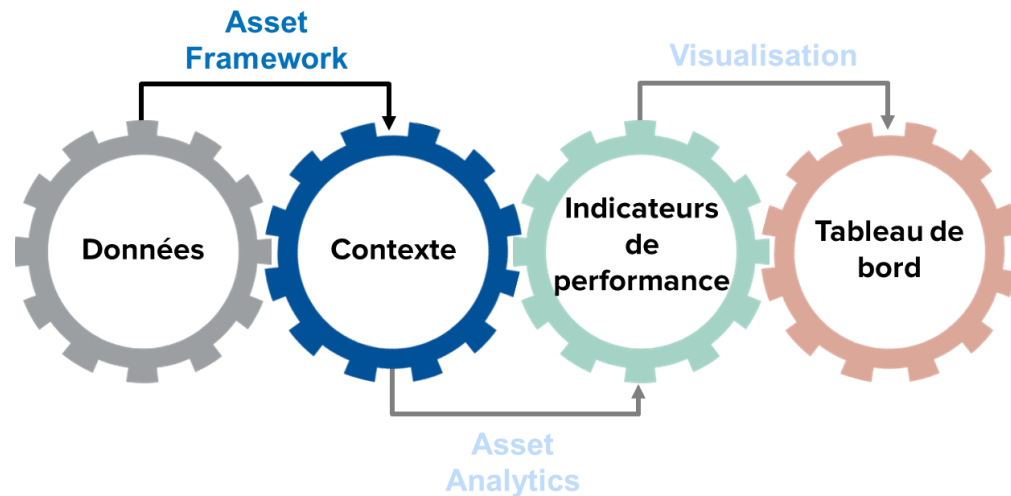
Information décisionnelle – un aperçu



Visualisation instantanée

Comment transformer les données en information?





Contexte et standardisation

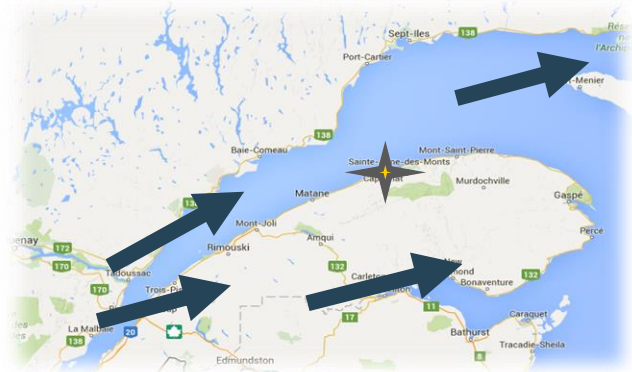
Quel est le contexte?

Limite haute :
25 nœuds

Vitesse 3,7 nœuds

Cap Chat, Québec, Canada

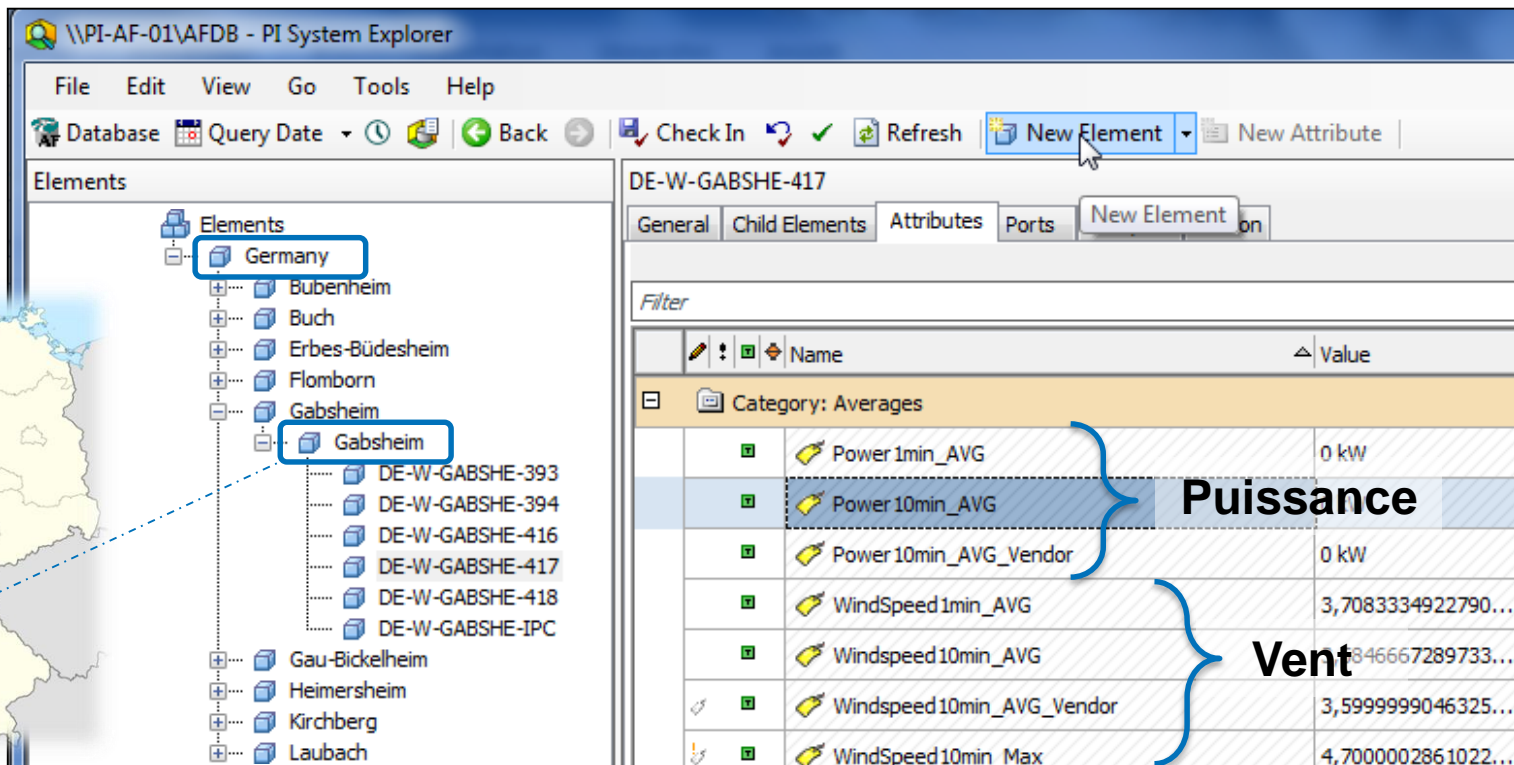
Éolienne N-101



Moyenne 10 min :
5,5 nœuds

Puissance 0 kW

PI Asset Framework contextualise les données



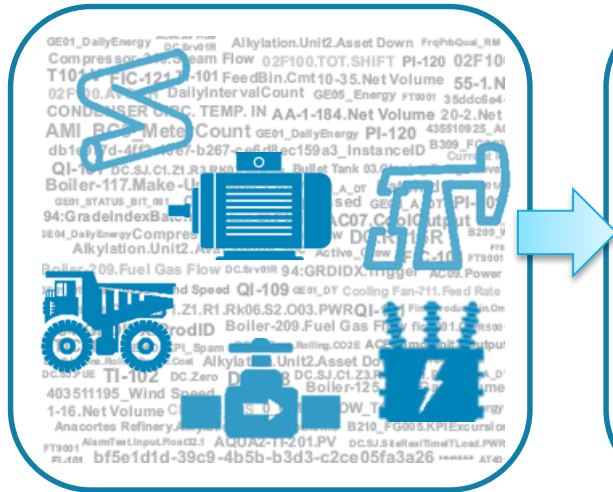
The screenshot displays the PI System Explorer interface. On the left, a tree view shows a hierarchy of assets under 'Germany', with 'Gabsheim' selected. A map of Germany is overlaid on the left side, with a blue dot indicating the location of Gabsheim. The main pane shows the details for asset 'DE-W-GABSHE-417'. The 'New Element' button is highlighted in the top toolbar. The 'Attributes' tab is active, showing a table of data points categorized under 'Averages'.

Name	Value
Category: Averages	
Power 1min_AVG	0 kW
Power 10min_AVG	
Power 10min_AVG_Vendor	0 kW
WindSpeed 1min_AVG	3,7083334922790...
Windspeed 10min_AVG	3,46667289733...
Windspeed 10min_AVG_Vendor	3,5999999046325...
WindSpeed 10min_Max	4,7000002861022...

Annotations in the image include a bracket labeled 'Puissance' (Power) grouping the Power 1min_AVG, Power 10min_AVG, and Power 10min_AVG_Vendor rows, and another bracket labeled 'Vent' (Wind) grouping the WindSpeed 1min_AVG, Windspeed 10min_AVG, and Windspeed 10min_AVG_Vendor rows.

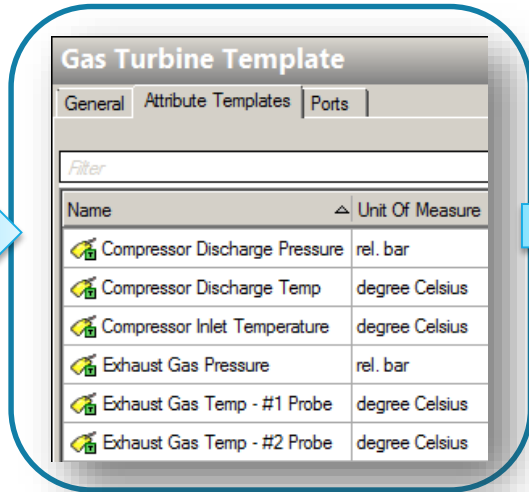
La contextualisation **accélère** le temps de réponse

Actifs



A screenshot of a data-rich interface, likely a dashboard or asset management tool. The interface is filled with text, including asset names and identifiers such as 'GE01_DailyEnergy', 'Compressor', 'Boiler-117', and 'Boiler-209'. There are several blue icons overlaid on the text, representing different types of assets: a truck, a train, and a factory. A large blue arrow points from this section towards the 'Terminologie commune' section.

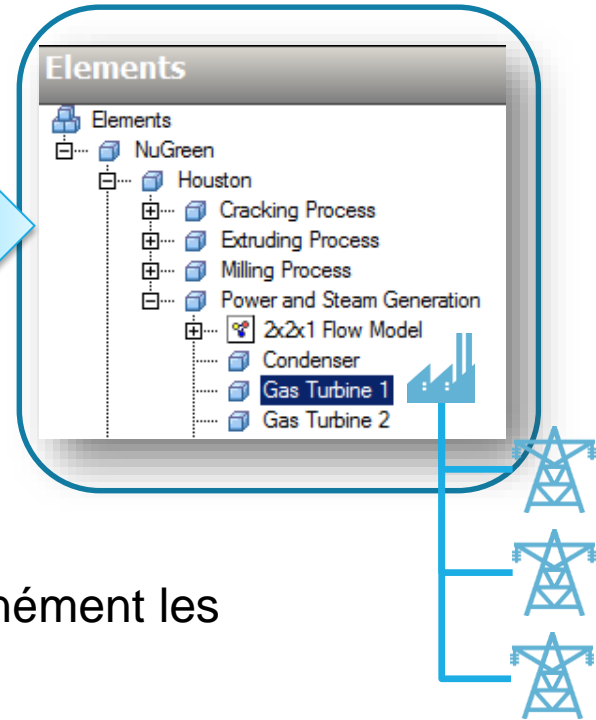
Terminologie commune



A screenshot of a 'Gas Turbine Template' table. The table has a 'General' tab selected. It contains a list of parameters and their units of measure. A large blue arrow points from this section towards the 'Relations' section.

Name	Unit Of Measure
Compressor Discharge Pressure	rel. bar
Compressor Discharge Temp	degree Celsius
Compressor Inlet Temperature	degree Celsius
Exhaust Gas Pressure	rel. bar
Exhaust Gas Temp - #1 Probe	degree Celsius
Exhaust Gas Temp - #2 Probe	degree Celsius

Relations

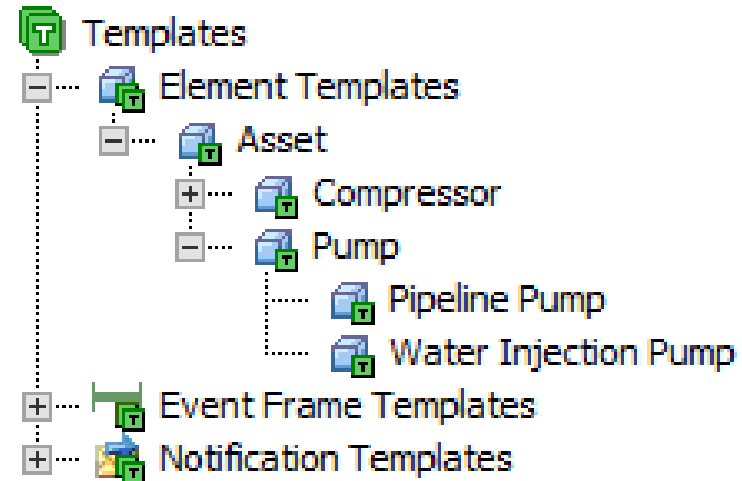


A screenshot of a hierarchical tree structure showing relationships between elements. The tree is titled 'Elements' and contains a list of elements, including 'Houston', 'Cracking Process', 'Extruding Process', 'Milling Process', 'Power and Steam Generation', '2x2x1 Flow Model', 'Condenser', 'Gas Turbine 1', and 'Gas Turbine 2'. A large blue arrow points from this section towards the right. To the right of the tree, there are three blue icons representing power lines or towers, connected by a blue line.

PI Asset Framework permet de comprendre instantanément les données ainsi que leurs relations entre vos actifs.

Les gabarits permettent un déploiement rapide et **standardisé**

- Déploiement **rapide**
 - Standardisation des attributs et calculs
- Gestion des actifs **facilitée**
 - Mises à jour centralisées
- **Réutilisation** des écrans de visualisation
 - Utilisation d'écrans uniformes pour les actifs similaires



Juwi réalise des économies de 2,6 M € avec PI Asset Framework

“Look and Feel” – Asset view in PI Asset Framework



- “Copy/paste” tree structure
- Standardization of Assets using Templates
 - generic (90%)
 - specific (5%)
 - analytics (5%)
- Triple structure views
 - Assets by location
 - Assets by owner
 - Assets by energy flow
- Benefits of using PI AF
 - Big time savings
 - No errors when adding new assets

The screenshot shows the PI System Explorer interface. On the left, a tree structure lists assets under various locations like Germany, Buch, Erbes Büdesheim, Flornborn, Gabothen, Gau-Bütschheim, Heimersheim, Waldburg, Laubach, Laudert, Neuenkirch, Nörth, Rebborn, Rech, Schaeberghauf, Schornheim, Unzenberg, Waldsperghem, Wiersstadt, and Worms. On the right, a data table displays values for different categories.

Category	Asset Name	Value
Category: Averages	Power10min_AVG	0 kW
	Power10min_AVG_Vendor	0 kW
	WindSpeed10min_AVG	3,7083334922790...
	WindSpeed10min_AVG_Vendor	3,5846667289733...
Category: Calculated Values	DailyProduction	17805,333694375
	Heading	Out
	NormalisedTheoreticalPower	0,028061157311...
	ProductionToday	17347 kW

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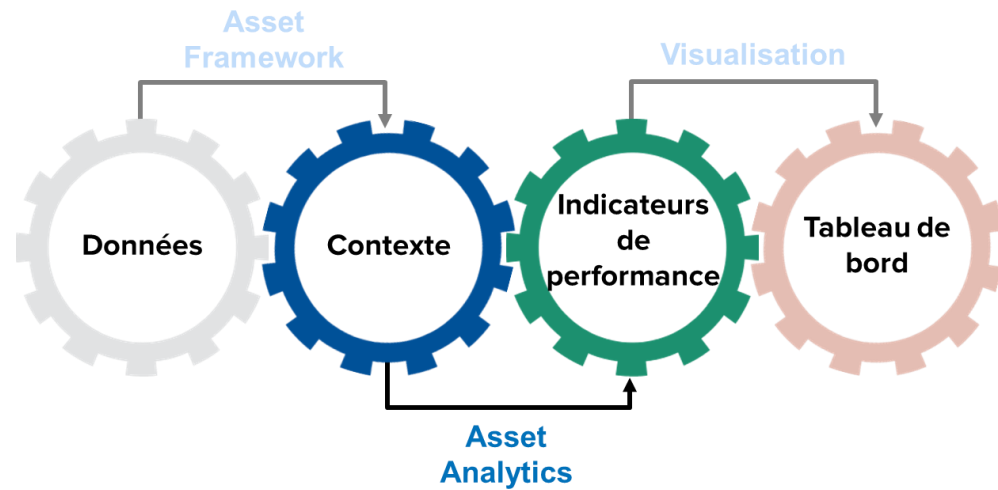
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« Avant, Il nous fallait parfois 1 semaine pour se connecter, et 2 semaines pour trouver nos erreurs. »

« Avec PI AF, vous configurez des gabarits, vous les appliquez, et vous pouvez être pratiquement certains que les données qui apparaissent sont exactes. »



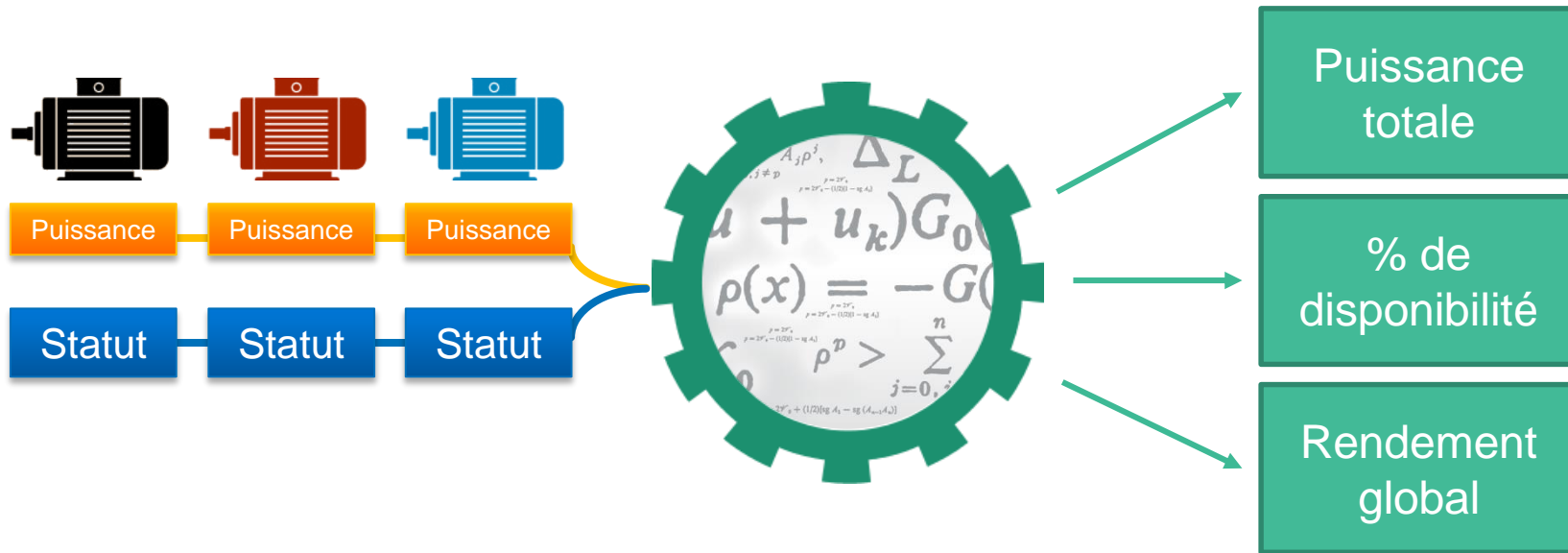
Dr Thomas Weiss, JUWI



Calculs et indicateurs clés de performance (ICP)

Les gabarits PI AF standardisent les données en un format cohérent

Asset Analytics transforme les données en indicateurs clés de performance



Les fonctionnalités de « **Roll-Up** » permettent de **remonter les donnés** au niveau de chaque site

Well Pad 035

General Child Elements Attributes Ports Analyses Version

Name Backfilling

✓	Oil Flow Rate Rollup
⊗	Well Pad Volume Flow Rate Rollup

Name: Oil Flow Rate Rollup

Description:

Categories:

Analysis Type: Expression Rollup

Rollup attributes from

Child elements of Well Pad 035

This element - Well Pad 035

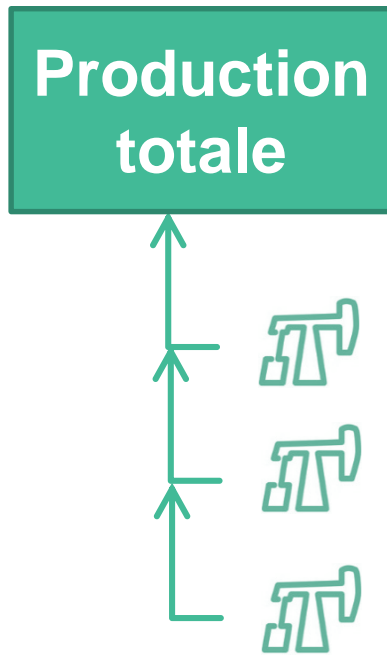
To select attributes set criteria below

Attribute Name: Oil Flow Rate

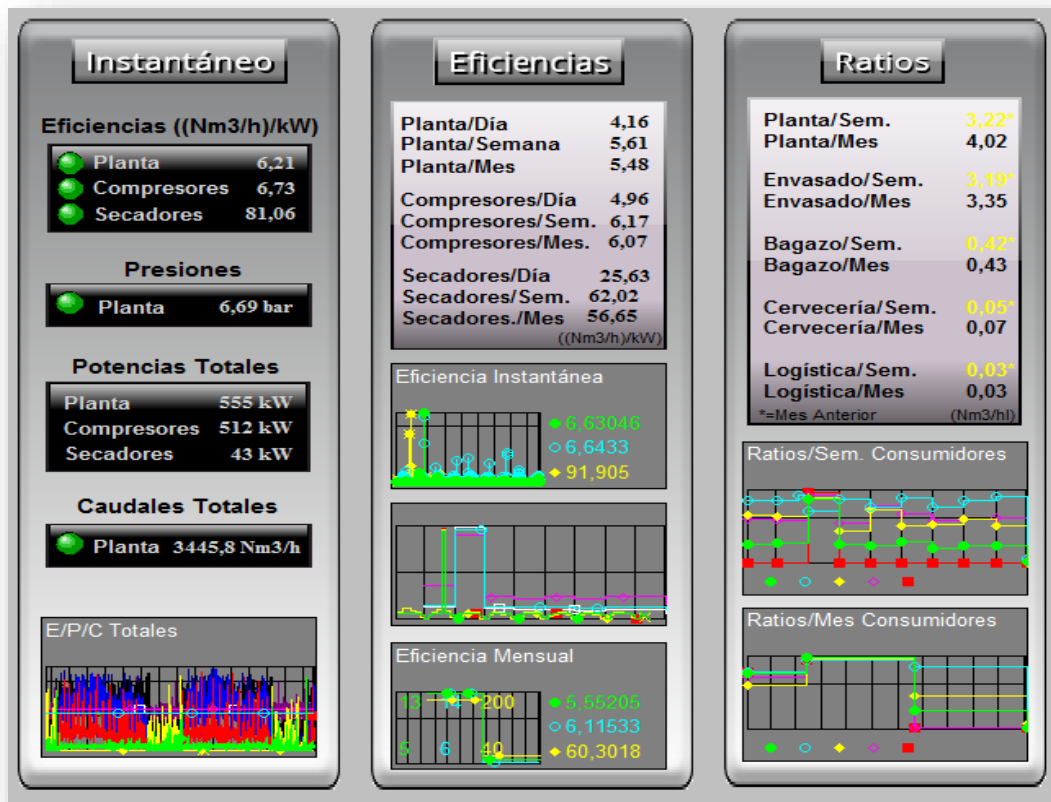
Attribute Category:

Attributes

Name	Parent Element
✓ Oil Flow Rate	OW-259
✓ Oil Flow Rate	OW-262
✓ Oil Flow Rate	OW-258
✓ Oil Flow Rate	OW-261
✓ Oil Flow Rate	OW-260



Utilisation des ICP pour réduire les coûts, la consommation d'eau et d'énergie chez Heineken

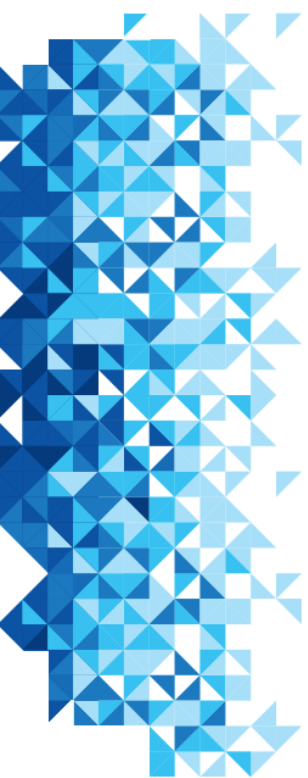


Nous pouvons voir en temps réel l'efficacité, la pression, la puissance et le débit.

Nous pouvons également faire le suivi de l'efficacité sur 24 h, 7 jours ou 1 mois.



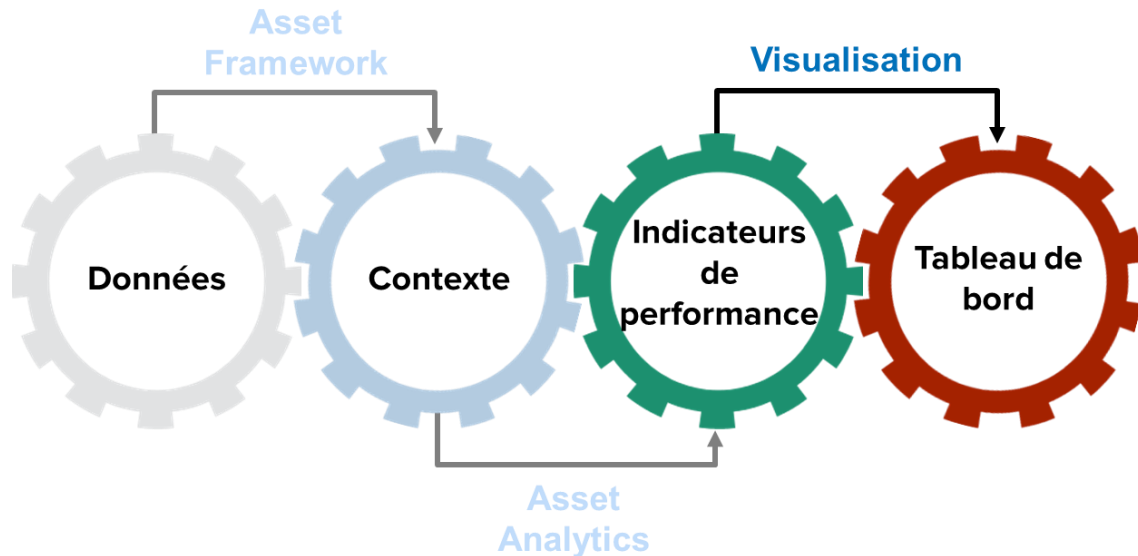
Consuelo Carmona Miura



The screenshot shows a software interface with a tree view on the left and a detailed view on the right. The tree view lists various data points (TR0606, TR0842, TR1123, TR1171, TR2003, TR2822, TR4085, TR4522, TR4559, TR4967, TR5493, TR5620, TR6002, TR6676, TR7785, TR8243, TR9124, TR9946, TR3450, TRManual) under 'Eastern District' and 'Northern District'. The detailed view shows a table of 'Current DGA Analysis' with columns for Name and Value.

Name	Value
Acetylene	<1
Carbon Dioxide	3004 ppm
Carbon Monoxide	223 ppm
Ethane	137 ppm
Ethylene	38 ppm
Hydrogen	193 ppm
Methane	115 ppm
Nitrogen	22698 ppm
Oxygen	2340 ppm

Démonstration

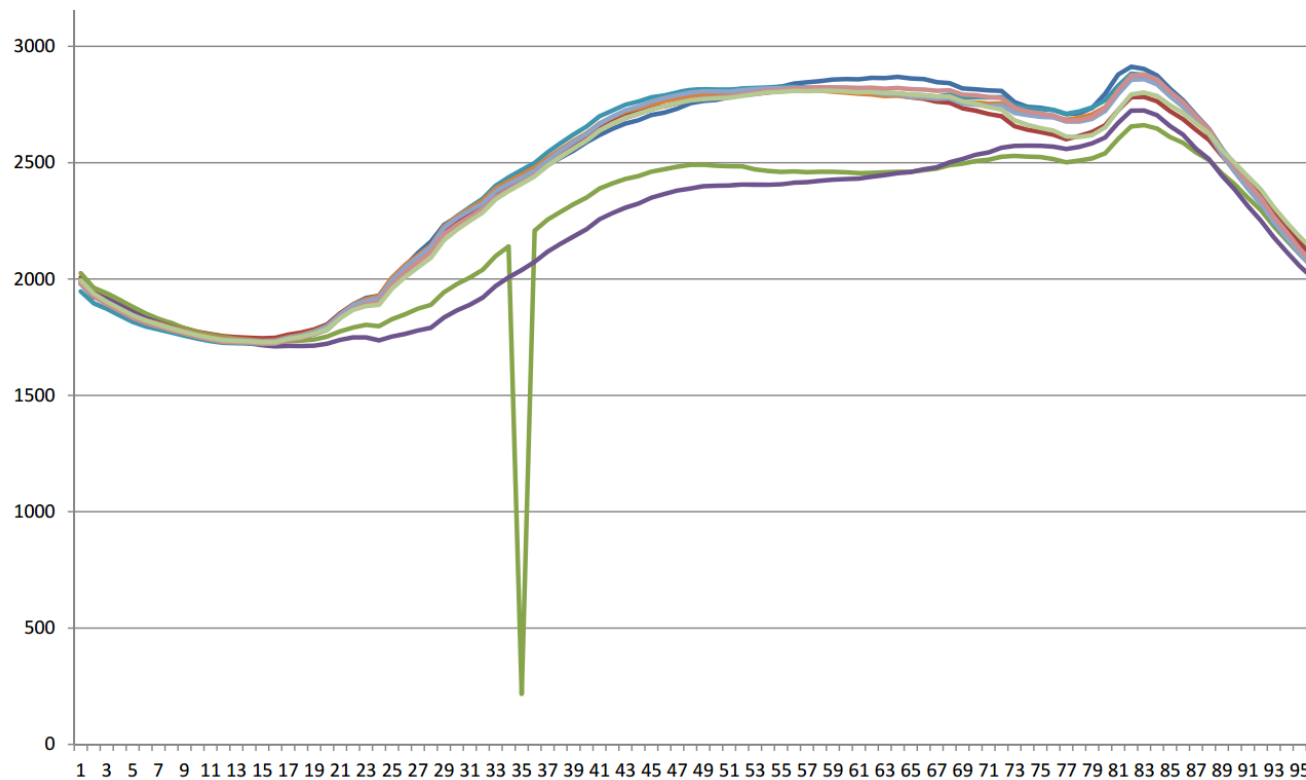


Visualisation en temps réel

Où est le problème?

4:30	1766.807	1770.041	1735.584	1712.094	1748.954	1760.249	1756.513	1746.813	1751.224
4:45	1782.593	1783.582	1740.005	1713.625	1763.2	1776.202	1772.523	1762.432	1765.907
5:00	1804.619	1804.311	1753.202	1722.105	1782.787	1798.3	1796.214	1783.199	1785.155
5:15	1851.697	1851.983	1775.265	1738.878	1833.121	1848.069	1846.02	1832.959	1832.181
5:30	1891.173	1889.403	1791.779	1749.428	1874.77	1890.169	1887.194	1871.383	1867.261
5:45	1918.68	1914.849	1803.538	1749.229	1901.105	1913.318	1905.974	1891.461	1883.946
6:00	1927.751	1928.128	1797.334	1736.343	1917.293	1927.759	1919.787	1900.453	1889.87
6:15	2001.637	2003.804	1827.463	1753.16	1994.741	2006.415	1996.289	1975.221	1958.406
6:30	2054.95	2058.036	1848.321	1764.349	2050.196	2060.041	2051.025	2028.24	2008.001
6:45	2112.258	2103.88	1872.549	1778.843	2095.131	2102.328	2094.292	2072.529	2050.109
7:00	2160.629	2137.386	1888.932	1790.602	2135.888	2143.732	2138.594	2116.436	2091.379
7:15	2232.516	2211.839	1943.359	1834.518	2220.943	2225.654	2219.614	2192.266	2166.789
7:30	2267.812	2254.537	1978.218	1865.147	2270.142	2268.746	2261.528	2233.358	2211.937
7:45	2294.774	2288.251	2006.233	1889.359	2308.142	2303.487	2294.172	2266.28	2249.907
8:00	2325.94	2322.89	2040.28	1920.23	2345.282	2336.993	2324.838	2299.474	2286.259
8:15	2370.621	2371.534	2099.076	1970.189	2400.857	2389.888	2377.086	2352.518	2342.512
8:30	2398.012	2401.169	2140.396	2007.306	2437.142	2420.344	2408.794	2385.162	2377.984
8:45	2427.269	2429.596	217.261	2038.443	2468.24	2449.527	2436.273	2415.056	2409.495
9:00	2452.356	2457.249	2208.352	2074.063	2499.239	2478.301	2465.481	2444.879	2441.46
9:15	2490.627	2502.216	2255.25	2117.835	2544.785	2520.463	2509.126	2488.076	2487.573
9:30	2521.597	2540.463	2288.521	2151.365	2584.2	2557.204	2550.518	2526.244	2525.164
9:45	2551.844	2575.42	2321.138	2182.995	2621.057	2593.661	2588.434	2561.901	2560.209
10:00	2588.298	2611.475	2350.499	2213.857	2655.357	2626.772	2622.822	2596.66	2594.748
10:15	2619.03	2650.911	2388.768	2256.956	2699.702	2668.777	2666.828	2638.944	2637.933
10:30	2645.652	2678.506	2411.097	2283.247	2724.45	2695.779	2698.503	2667.695	2667.878

Où est le problème?



Gestion proactive des réseaux d'actifs



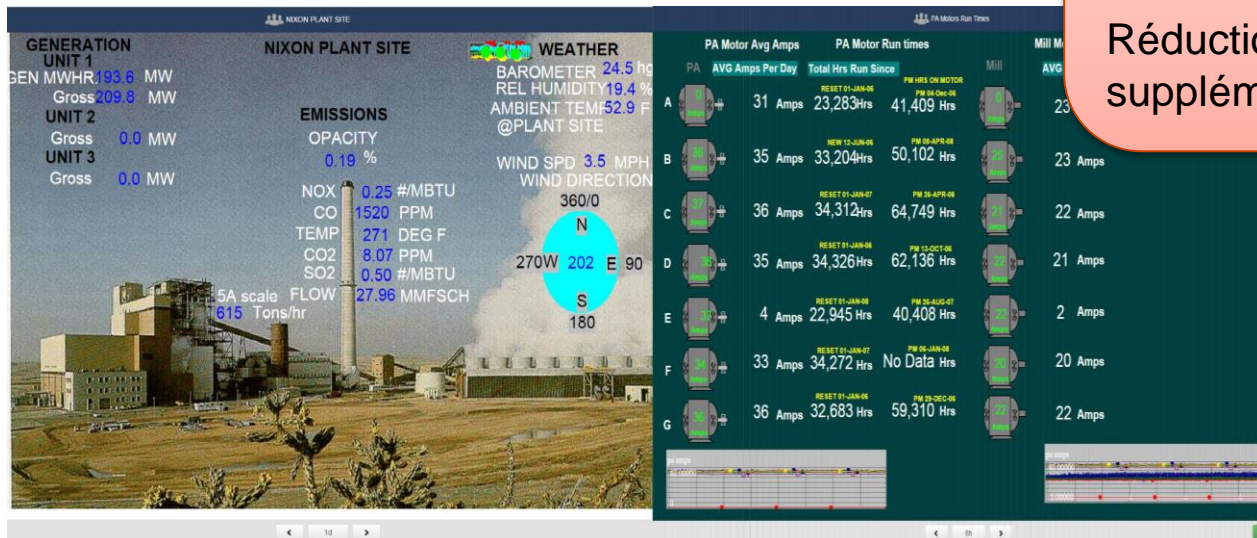
L'opérateur clique sur un transformateur sur la carte

L'information en temps réel du PI System s'affiche sur la carte

Accès à davantage d'information en un seul clic

Colorado Springs Utilities

Improving Business Processes through Operational Intelligence for Electric Generation



Gains opérationnels

Réduction de **29 %** des ressources affectées aux inspections

Réduction de **30 %** de l'utilisation des véhicules

Réduction de **58 %** des heures supplémentaires



David Mora



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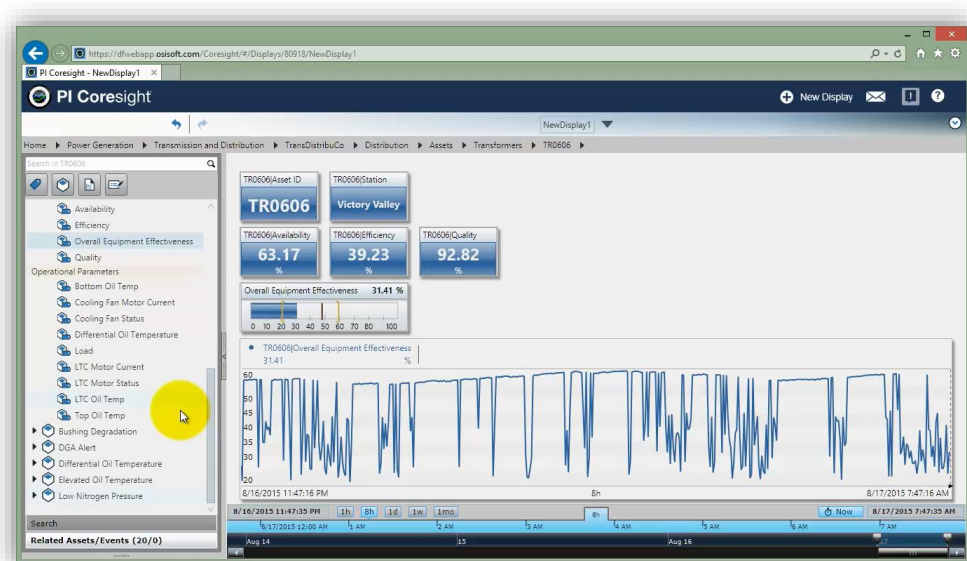
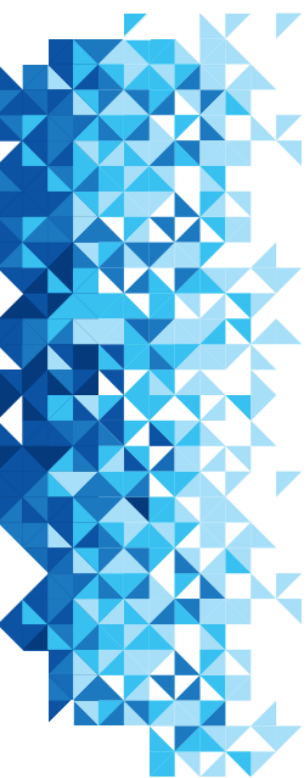
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Démonstration



Résumé

Améliorer les processus opérationnels



OSIsoft | Esri | Oil and Gas Dashboard

FILE TOOLS VIEW

Wells

Q Search

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Flow Tubing Pressure

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psi

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Cat Canyon Operations Dashboard Map

GeoFences

GeoFenceId	Category	Name
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DangerousArea/Danger Zone	DangerousArea	Danger Zone
Drilling Activity 1 Items		
DangerousArea/Drilling Activity	DangerousArea	Drilling Activity

Alerts

Alerts (8)

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Roustabout Miguel

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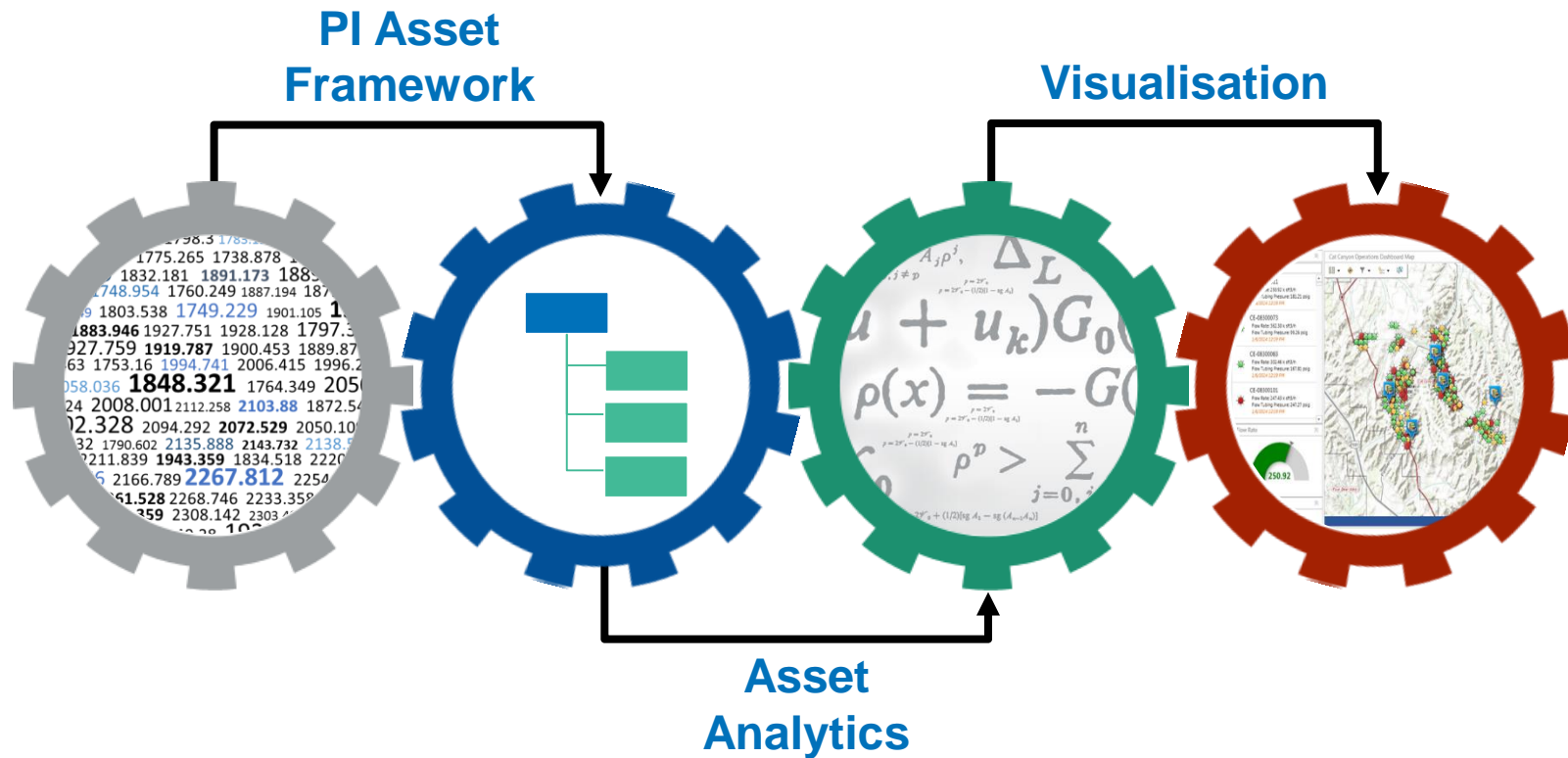
Roustabout Miguel

Fleet Average Speed

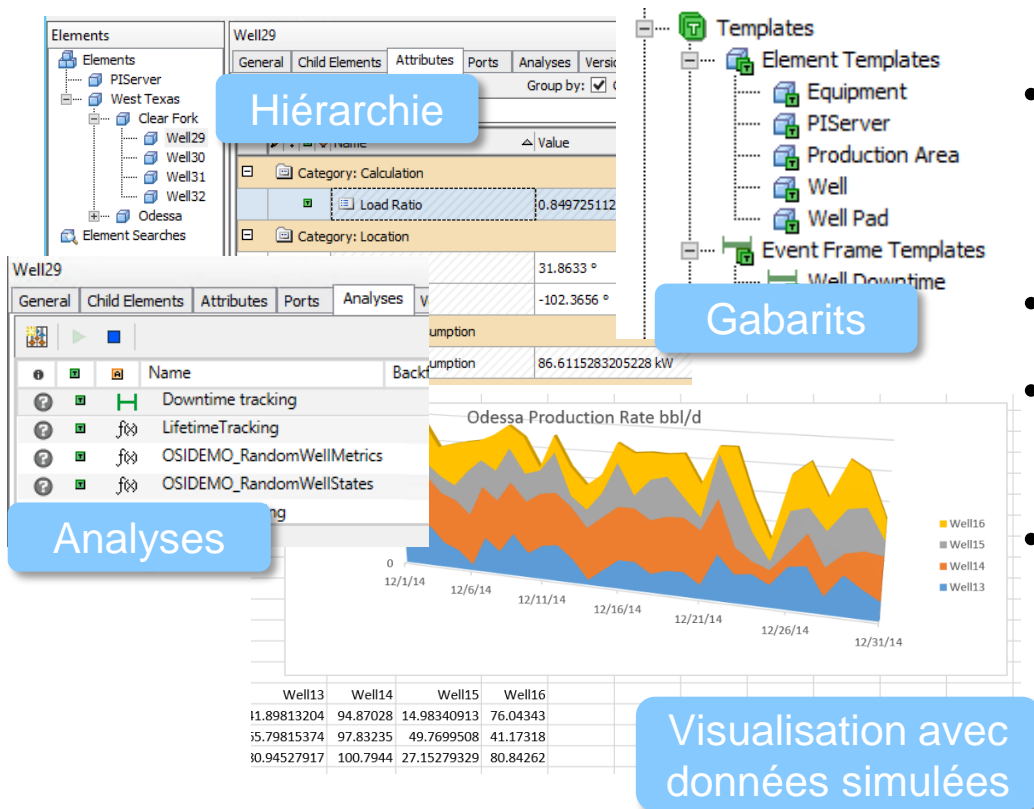
10.68 mph

Fleet Average Speed

Prendre de **meilleures** décisions plus **rapidement** avec les plus récents outils du **PI System**



Explorez par vous-même avec les trousse d'exemples PI AF



- Outil d'apprentissage et point de départ pour un PI System basé sur les actifs
- Exemples pour diverses industries
- Trousse offertes à tous sur le site du **Soutien technique d'OSIsoft**
- Rechercher « Example kit »

Information des présentateurs

Max Mckay

mmckay@osisoft.com

Ingénieur de systèmes

OSIsoft



Questions

SVP attendre le **micro** avant de poser votre question



Mentionner votre **nom et celui de votre entreprise**

N'oubliez pas...

Remplir la fiche d'évaluation

OSIsoft. REGIONAL SEMINAR
Montréal, Québec • Sept 17-18, 2015

Formulaire d'évaluation					
Nom:				Entreprise:	
Courriel:					
Qualité des présentations					
	Faible	Bonne	Excellent	N/A	
1. Avec vos données vous pouvez transformer votre monde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Transformer vos données en information décisionnelle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Maintenance du réseau de transports électriques : surveillance en temps continu à l'aide de Sharepoint/ PI Webpads et de EventFrames	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Utilisation du PI System chez Blue Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Transformer votre information décisionnelle en intelligence d'entreprise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Une architecture de données comme moteur opérationnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Comment Claudio supporte l'excellence des opérations des centres de données par le biais de de son offre DCIM en mode service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Qualité du séminaire					
	Faible	Bon	Excellent	N/A	
1. Présentation Présentation des sujets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Temps alloué aux repas/pauses/discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Temps alloués aux présentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Aide à une meilleure compréhension du PI system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Général					
	Faible	Bon	Excellent	N/A	
Avons-nous rencontré vos attentes aujourd'hui?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



감사합니다

谢谢

Danke

Thank You

Gracias

Merci

ありがとう

Спасибо

Obrigado