

**Table 1 — TDE-BOF™ Implementation Levels**

TDE-BOF™ can be deployed at three progressive implementation levels, depending on the customer’s objectives, available data and desired degree of plant integration.

**Integration level:**

● **Full live integration**      ◐ **Partial / advisory integration**      — **No live integration required**

<b>Version</b>	<b>Main purpose</b> What it is for	<b>Typical use</b> Typical applications	<b>Plant integration</b> Integration level	<b>Expected output</b> What the customer gets
<b>Offline Simulator</b>	Process study and scenario evaluation	What-if analysis, recipe comparison, training, benchmarking, engineering studies	<b>— No live plant connection required</b>	Simulated process trends, thermal and metallurgical analysis, comparison of operating scenarios
<b>DSS / Advisory Mode</b>	Decision support during plant operation	Operator guidance, endpoint support, blow assessment, deviation interpretation, process review	<b>◐ Historical, exported or semi-live plant data</b>	Recommendations, warnings, process interpretation, support for operational decisions
<b>Online Digital Twin</b>	Real-time synchronized process representation	Live monitoring, advanced supervision, predictive support, digital twin deployment	<b>● Integrated with live plant signals and automation architecture</b>	Real-time tracking, predicted process evolution, dynamic advisory output, synchronized digital process view

Each level corresponds to a different operational scope, from offline engineering analysis to real-time synchronized process intelligence.