IBM Institute for Business Value

Why cognitive manufacturing matters in electronics

Activating the next generation of production success

Despite the speed at which the industry changes, a key group of metrics govern electronics production. So we asked respondents which metrics are important or very important to their success.





Higher throughput with low cost per unit of production

Lower machine downtime



Minimum defects with higher rate of accuracy

manufacturing maturity

Cognitive



Lead time in changing assembly sequence for multiple product configurations



Flexibility to incorporate multiple product variants with minimal effort

IIoT as the foundation

An emerging group of manufacturers is integrating analytics, IIoT and cognitive computing with production to increase flexibility, speed and quality



Sensors	Data	Analytics	Information	Cognitive	Knowledge
Understand		Reason		Learn	

Manufacturing maturity

Early adopters of cognitive manufacturing are both moving aggressively to implement new technologies, and importantly, using a strategy to guide their efforts



have multiple advanced initiatives

Starters 35% have multiple projects underway

Observers 31%

have few projects underway

2017

2020

Return on investment

Starters and Actives achieved better returns for cognitive manufacturing technology investments, noting their projects delivered "significant" or "substantial" ROI



Cognitive transformation

Between 2017 and 2020, electronics companies see themselves transition from "establishing a technical foundation" to "enabling insight and optimization capabilities"



How can your company realize benefits from cognitive computing? To learn more, visit ibm.biz/cogmanufacture



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