



System Insights

Q4 2014

VIMANA | by System
Insights

Berkeley, CA | Chennai, India

Background and Vision

Berkeley, CA

2009

India

2010

Customers

40+

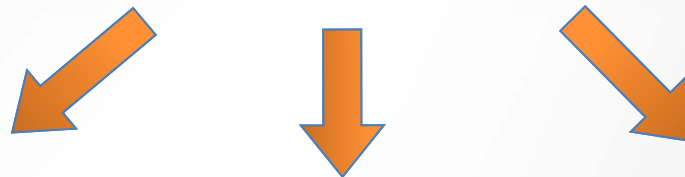
Sites

60+

The predictive analytics platform for manufacturing intelligence



Internet of Things



Industry 4.0

Smart Factory
Digital Manufacturing
Factory of the Future

Industry Initiatives

VIMANA – Significant ROI

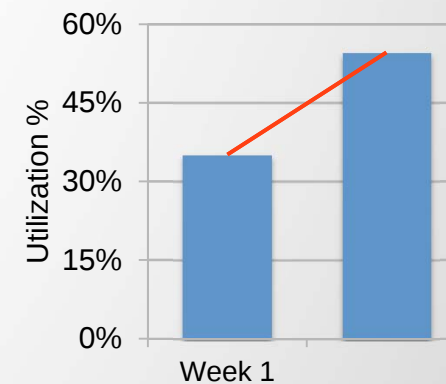


Increased performance – saves \$7.68/part

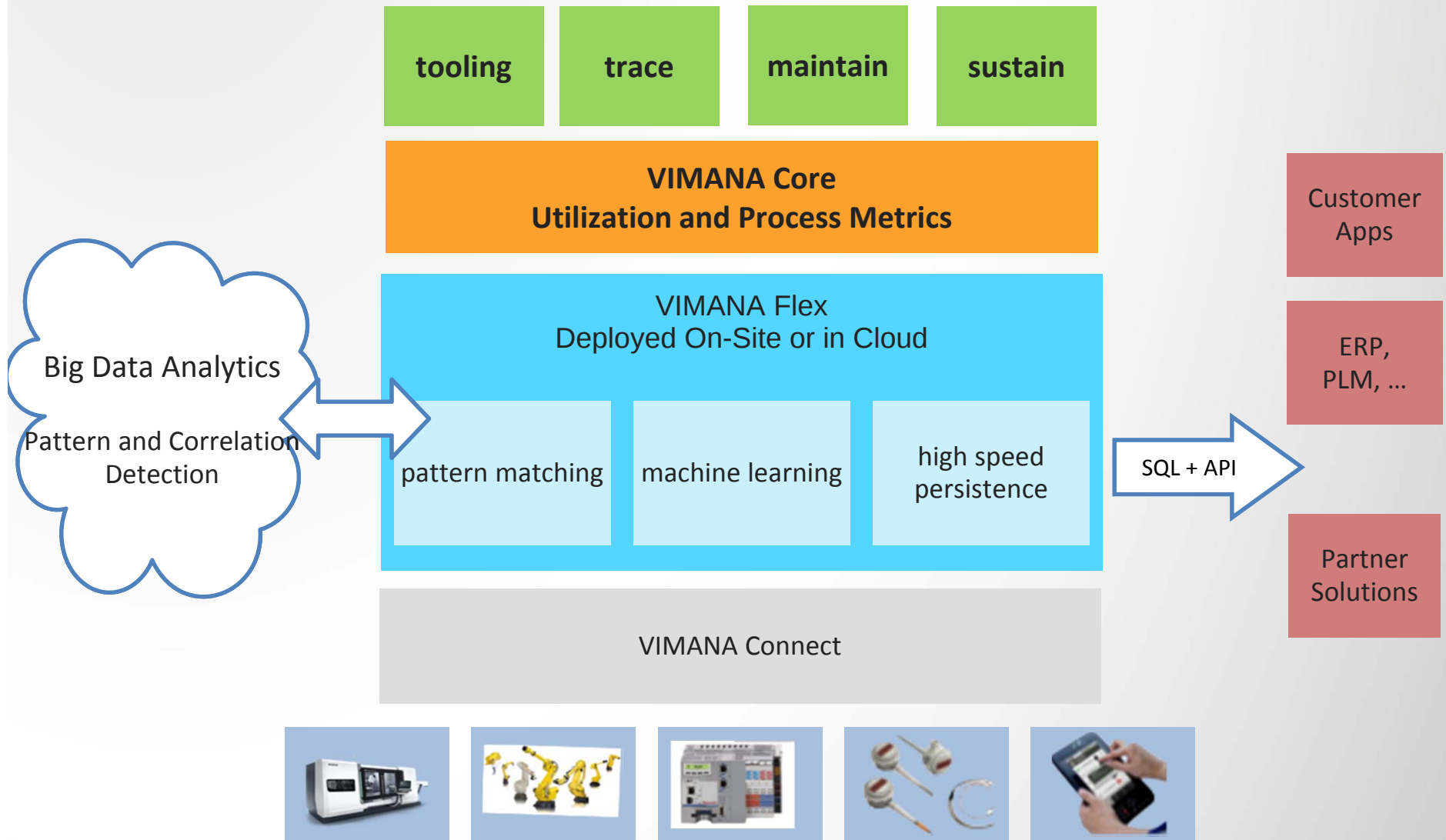
<i>Performance Improvement</i>	10%
<i>Machines in Shop</i>	30
<i>Annual Savings per Machine</i>	\$77K
<i>Annual Savings per Shop</i>	> \$2M
<i>ROI</i>	< 1 Month

Aerospace customer increases utilization of manufacturing equipment

<i>Utilization Improvement</i>	35%
<i>Machines in Shop</i>	30
<i>Annual Savings per Machine</i>	\$70K
<i>Annual Savings per Shop</i>	> \$2M
<i>ROI</i>	< 1 Month



VIMANA Flex Technology Platform

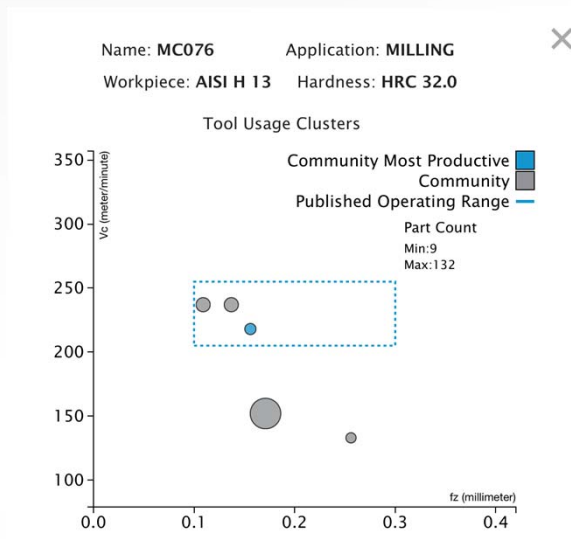
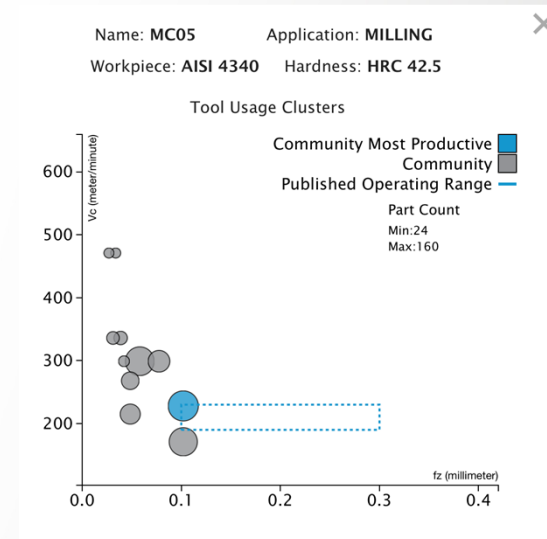


Data collection from networked things (IIOT)

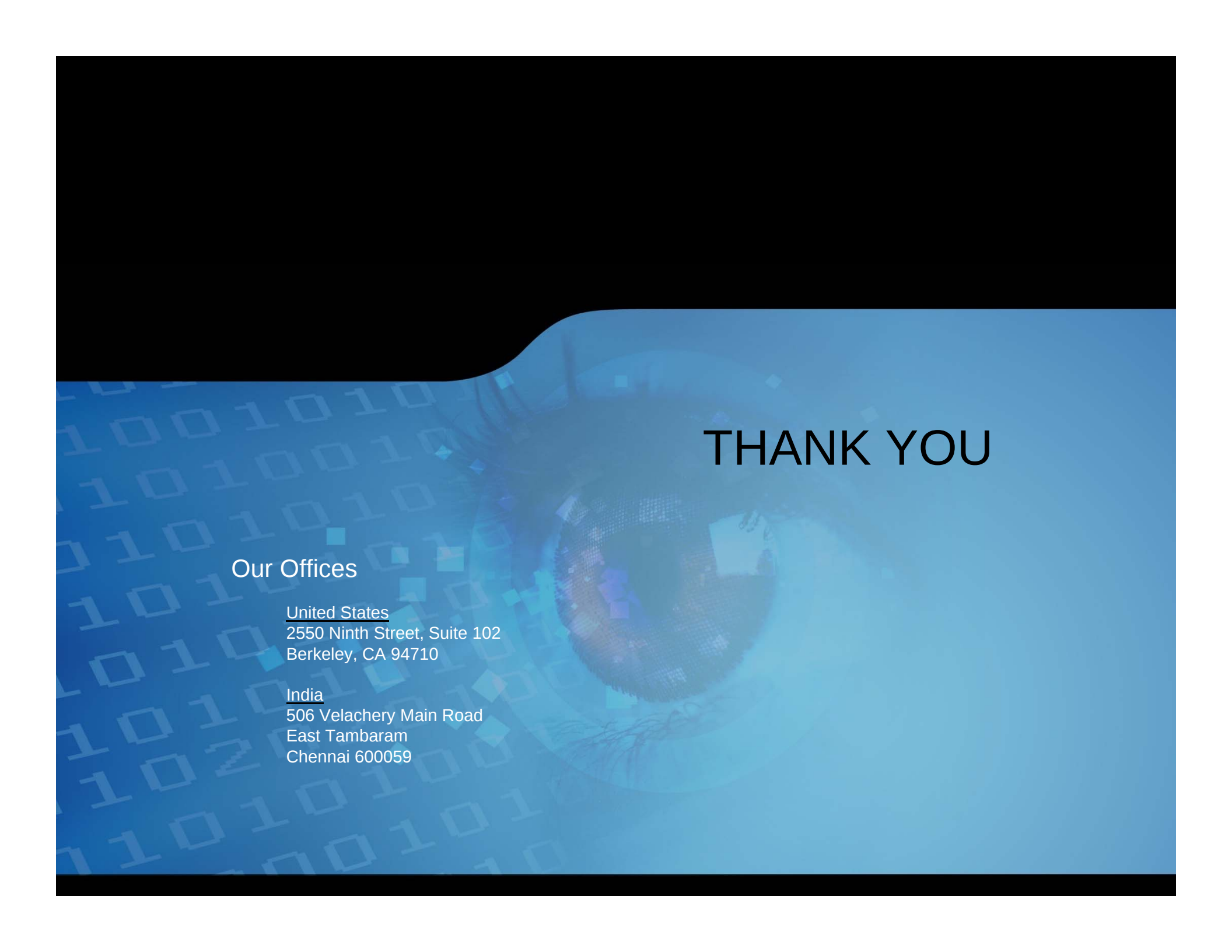
Tooling Optimization



- Partnered with Kennametal to develop first crowd sourced tooling analytics
- Finds optimal process parameters from a community using machine learning and clustering
- Predicts savings based on changes and validates optimal parameters are used in production



3911980_oyd_111~14 1			Feed Per Rev millimeter/revolution		Speed Surface meter/minute		Projected Results		
Cutting Tool	Usage	Application	Baseline	Recommended	Baseline	Recommended	Cutting Time Reduction	Cost Savings	
EM080		1 Milling	0.0407	0.194	212	141	68%	119s	\$3,314.27
		2 Milling	0.0434	0.194	232	141	62%	91s	\$2,515.24
DR014	F	3 Drilling	0.00361	0.00931	70.7	65.9	58%	18s	\$496.07
EM143		4 Drilling	0.00677	0.00828	63.6	63.6	18%	1s	\$32.64
		5 Drilling	0.00309	0.00828	54.1	63.6	68%	7s	\$195.01
EM072		6 Milling	0.0156	0.0226	163	135	16%	5s	\$147.09
DR012		7 Drilling	0.0103	0.0170	117	91.5	22%	10s	\$267.05
EM29		8 Milling	0.109	0.191	128	97.6	25%	13s	\$347.75
EM071	R	9 Milling	0.00646	0.0113	118	101	33%	7s	\$195.87
DR0146	R	10 Drilling	0.151	0.182	47.4	47.4	16%	1s	\$28.87
DR081		11 Drilling	0.0124	0.0179	329	273	17%	12s	\$339.53
EM17		12 Milling	0.0950	0.166	96.0	73.2	25%	8s	\$212.50
EM207		13 Drilling	0.00282	0.00423	60.8	49.5	18%	6s	\$155.32
DR021	R	14 Drilling	0.0189	0.0105	52.8	143	33%	18s	\$495.14
EM21	F	15 Milling		0.0632		160			
EM179	R	16 Milling	0.121	0.199	111	86.5	22%	5s	\$150.00
GRAND TOTAL							320s	\$8,892.33	



THANK YOU

Our Offices

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