

Mark Welles

Transport Events - Preparing for Automation



What Customers are Saying about Automation

Container Terminal Automation

94% of surveyed IT organizations said it will be important for terminals to automate to stay competitive in the next 3 to 5 years.



Source: TechValidate survey of 50 users of Navis

Validated Published: Nov. 24, 2020 TVID: 535-2EA-836

navis®

TechValidate
by ResearchMetrix

94% of surveyed IT organizations said that technologies like Artificial Intelligence and Machine Learning are important to improve optimization at automated terminals in the next 3 to 5 years.



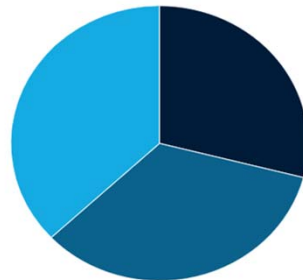
Source: TechValidate survey of 49 users of Navis

Validated Published: Nov. 24, 2020 TVID: 742-4FE-B3A

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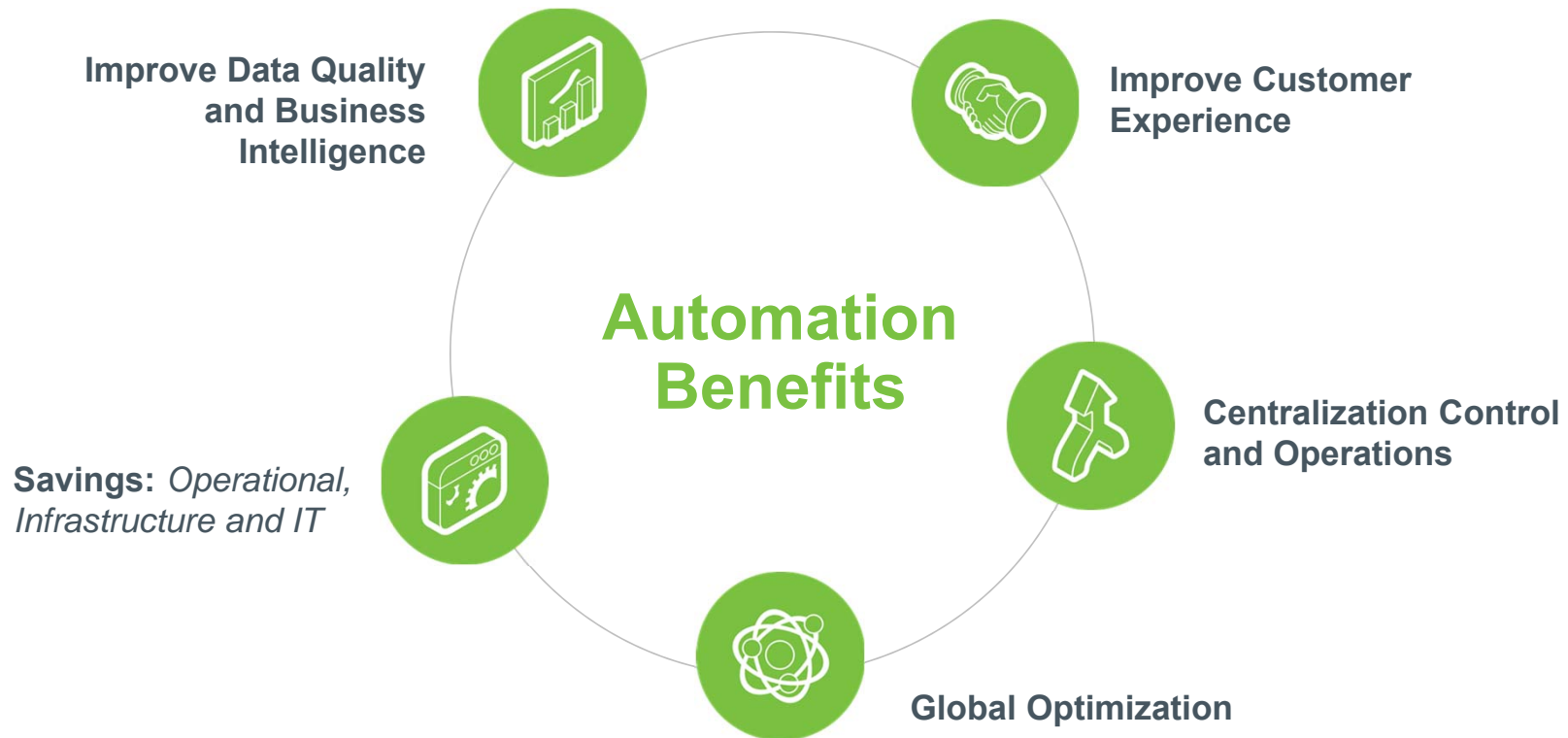
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If you were to automate your terminal, how would you prefer to approach the automation project?



- I would act as system integrator myself: 29%
- I would hire a system integrator: 34%
- I would purchase a pre-integrated solution from a single vendor: 37%

The Business Case for Automation



Evolution of Automation - SMARTization

Think - Heal & Act



Truck to AutoTruck



Shuttle to AutoShuttle



Straddle to AutoStrad



End-to-End Automation → Global Optimization



Connecting Software
Distributed Ecosystem



IoT Devices
Connect real-time



Cloud Adoption
Enabling digitalization



People
Train staff on
automation



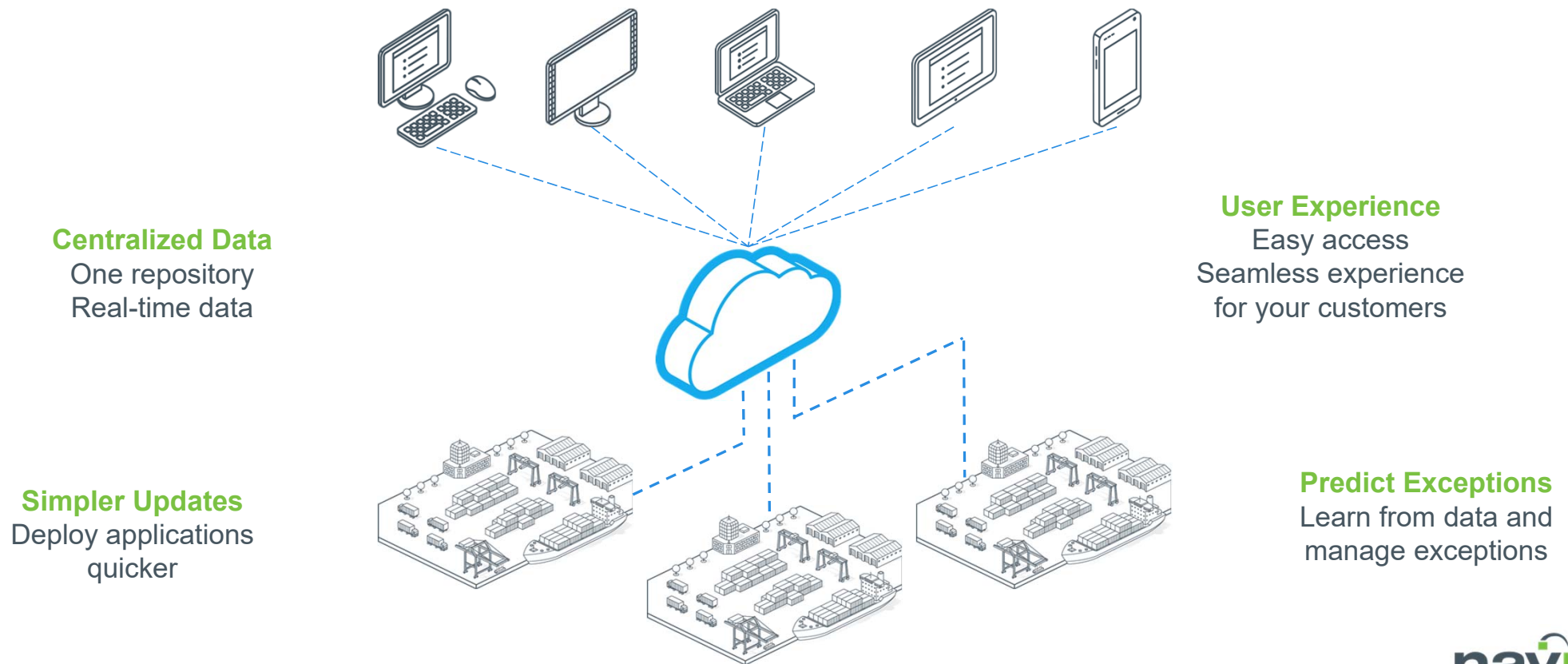
Secure Insights
AI, ML, blockchain



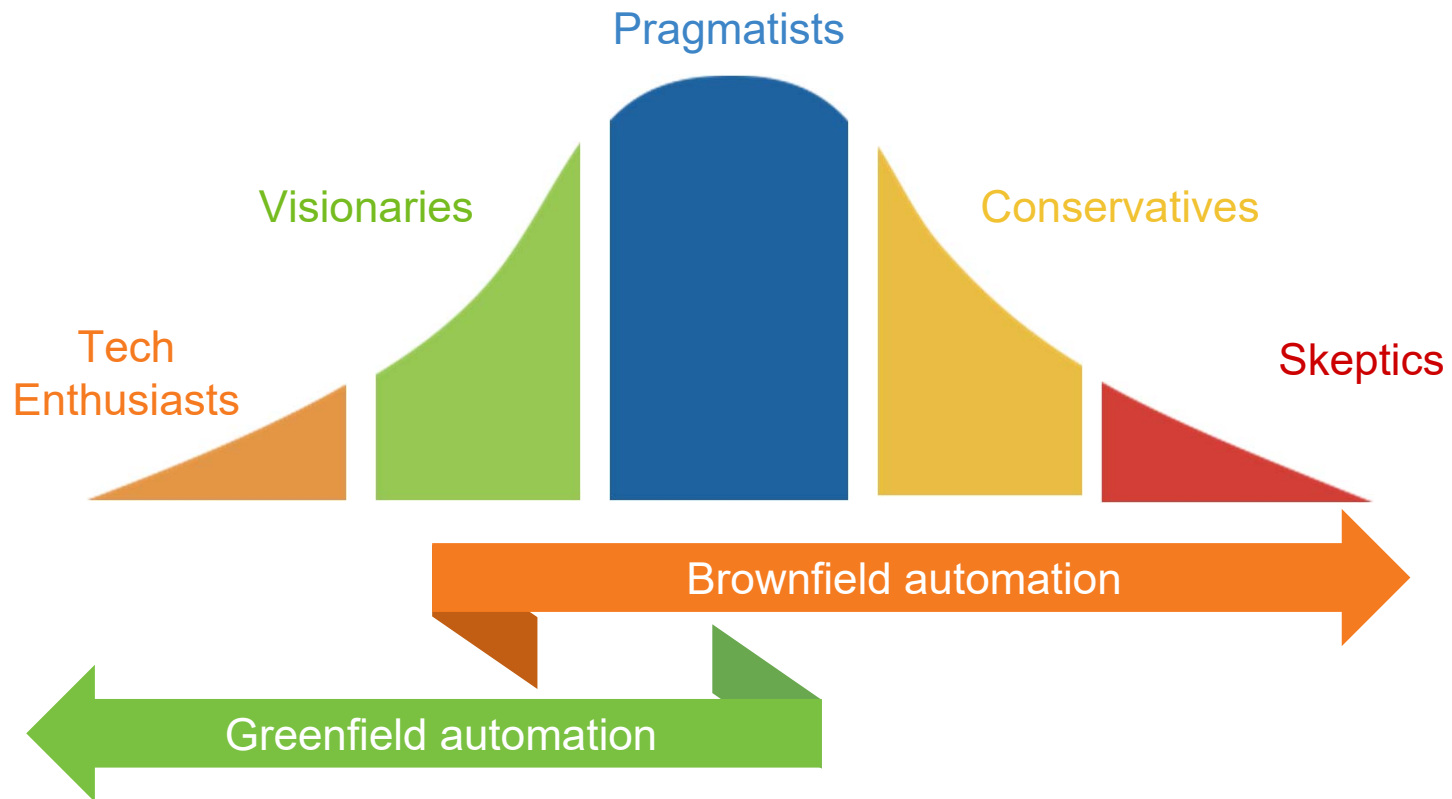
Control Room
Exception Management



Power of Data and Knowledge → Actionable Insights



The Next Wave of Automation



Stepwise Approach

Process Automation 1

Focus on automating existing processes

Initial Roll-Out

Initial automated moves (e.g. lift/set in block)

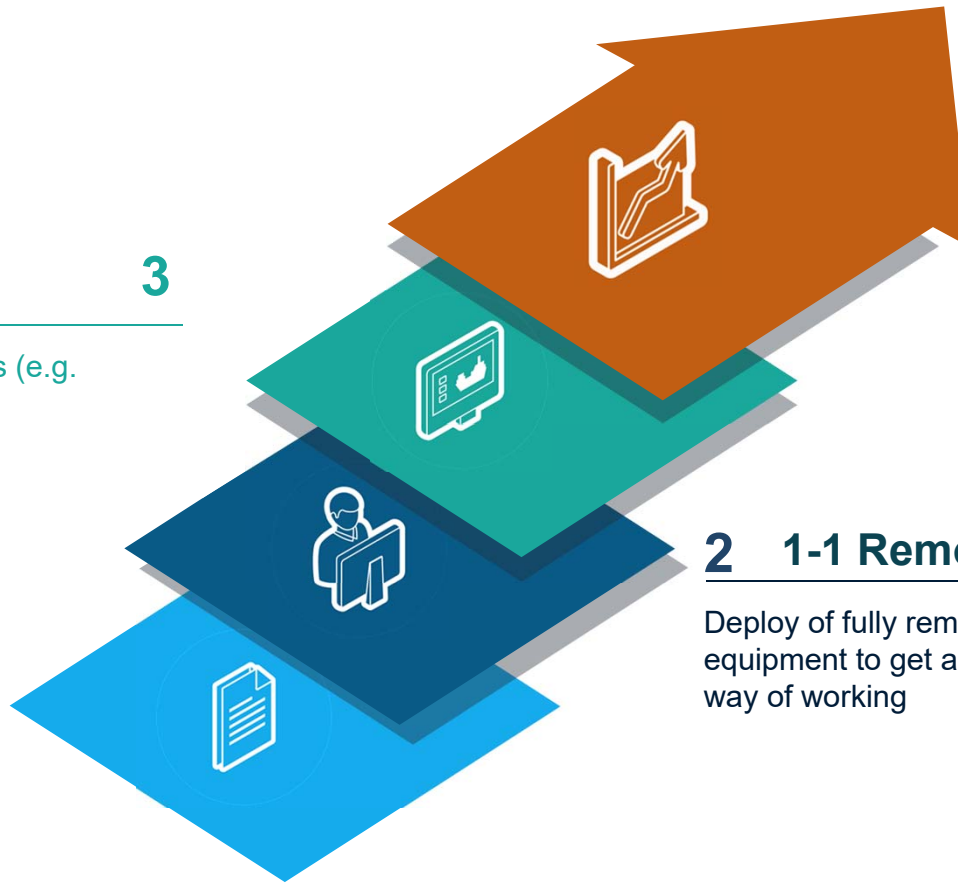
3

2 1-1 Remote Control

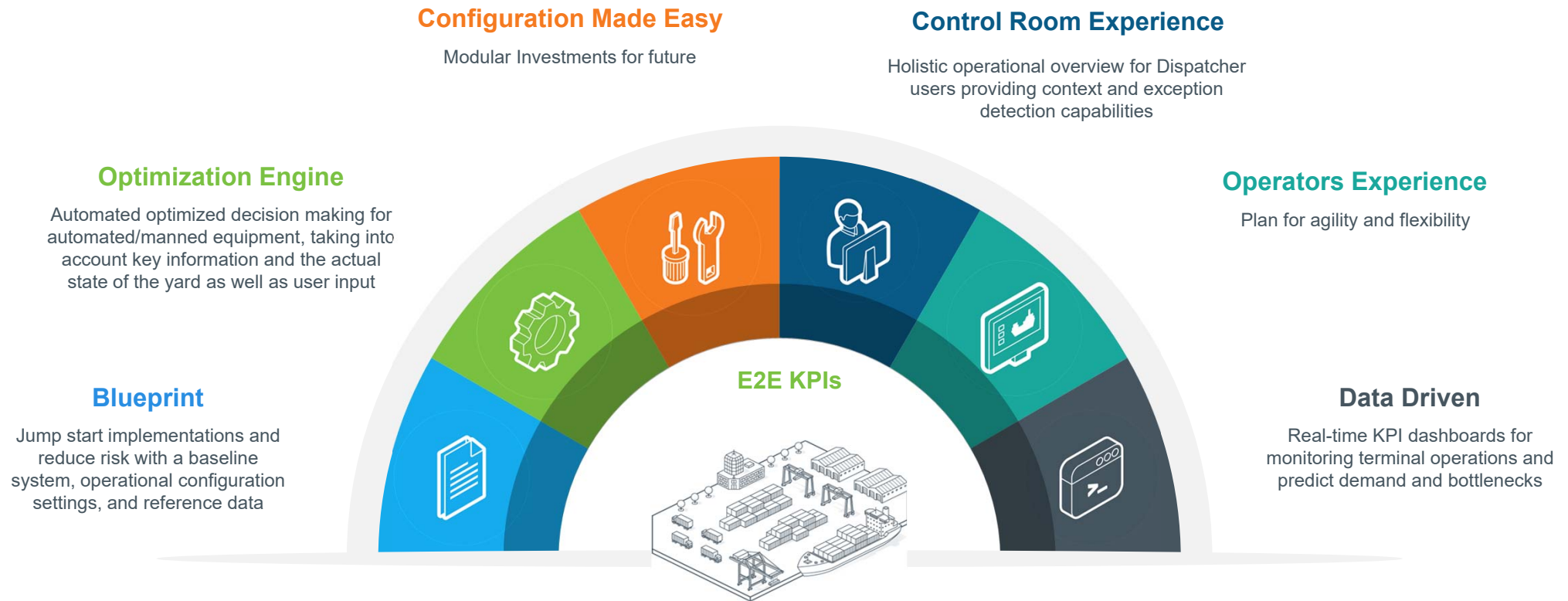
Deploy of fully remote controlled equipment to get adjusted to new way of working

4 Full deployment

Gradually roll-out automation for the full relevant equipment fleet



Path Towards Automation



THANK YOU!



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