



NEOMA
ALUMNI

Industrie 4.0 Traitement de la Data : Défis et Opportunités

16 Mai 2024

#NEOMA4EVER

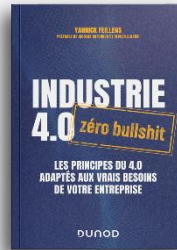


Humaine. Digitale. Performante.

Préparer l'entreprise de demain.



Yannick FEILLENS
Fondateur



Performance industrielle

- Manufacturing: qualité, coûts, délais
- Supply-chain, optimisation des stocks

Transformation digitale industrielle

- Stratégie digitale, industrie 4.0
- AMOA ERP

Anthony LOUE

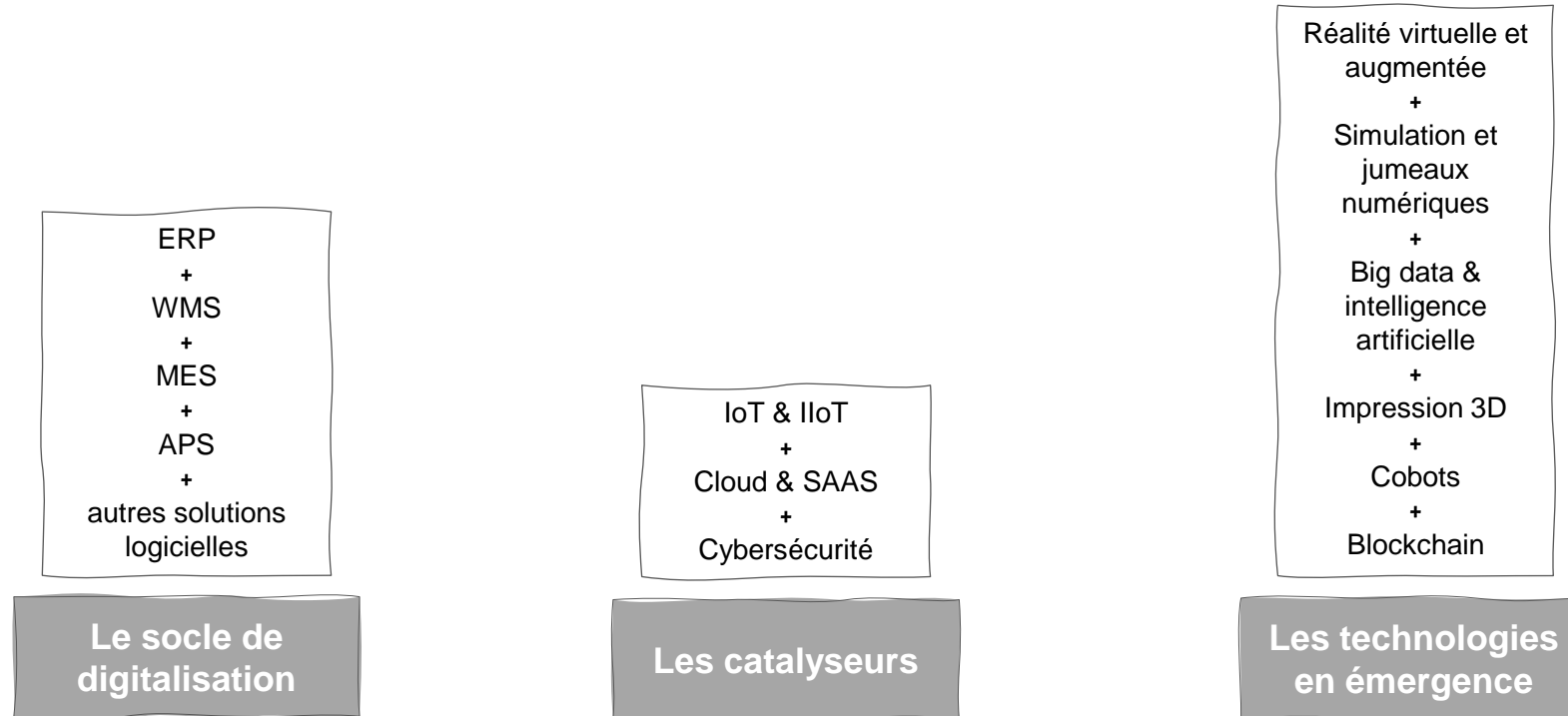


- Ingénieur INSA Strasbourg
- Global EMBA de NEOMA BS

- Géomaticien et Topographe
- Ingénieur Solution 3D / BIM / Imagerie
- Customer Success Director –South Europe



Industrie 4.0 les technologies



Impression 3D Plus qu'une impression



- Maquettes, prototypes et petites séries
- Personnalisation
- Grandes séries sur petites pièces

Maturité
Compatibilité PME



Blockchain industrielle No future



bullshit



Applications putatives

- Traçabilité, logistique
- Smart-contracts

Maturité
Compatibilité PME



Cobots L'accès à la robotisation



zéro bullshit

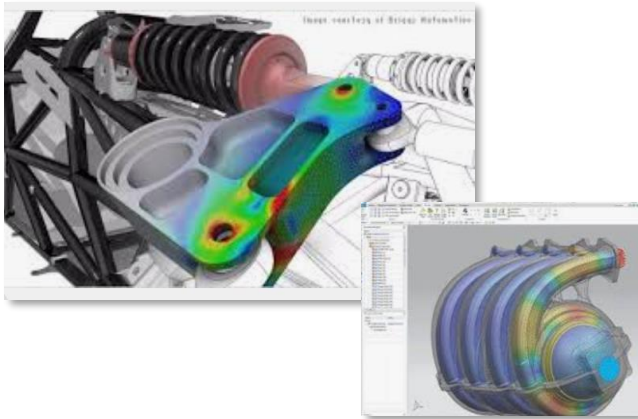
- Dévraquage
- Chargement de machines-outils
- Palettisation
- Programmation simplifiée

Maturité
Compatibilité PME



Jumeaux numériques La foire à tout

Jumeau de conception & simulation



Maturité



Compatibilité PME



Jumeau de fonctionnement



Maturité



Compatibilité PME



Jumeau de formation



Maturité

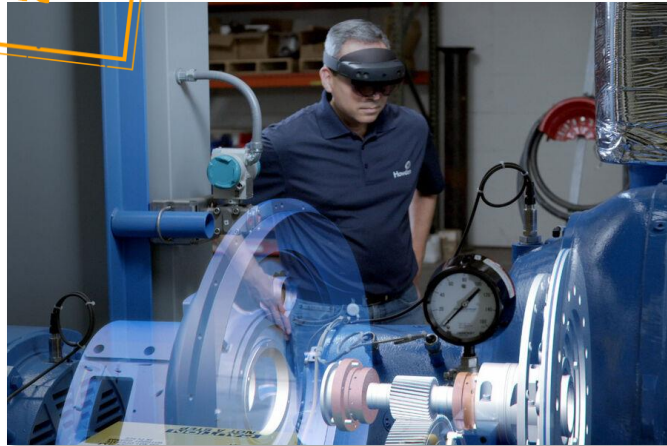


Compatibilité PME



AR/VR Une réalité en devenir

bullshit



zéro bullshit

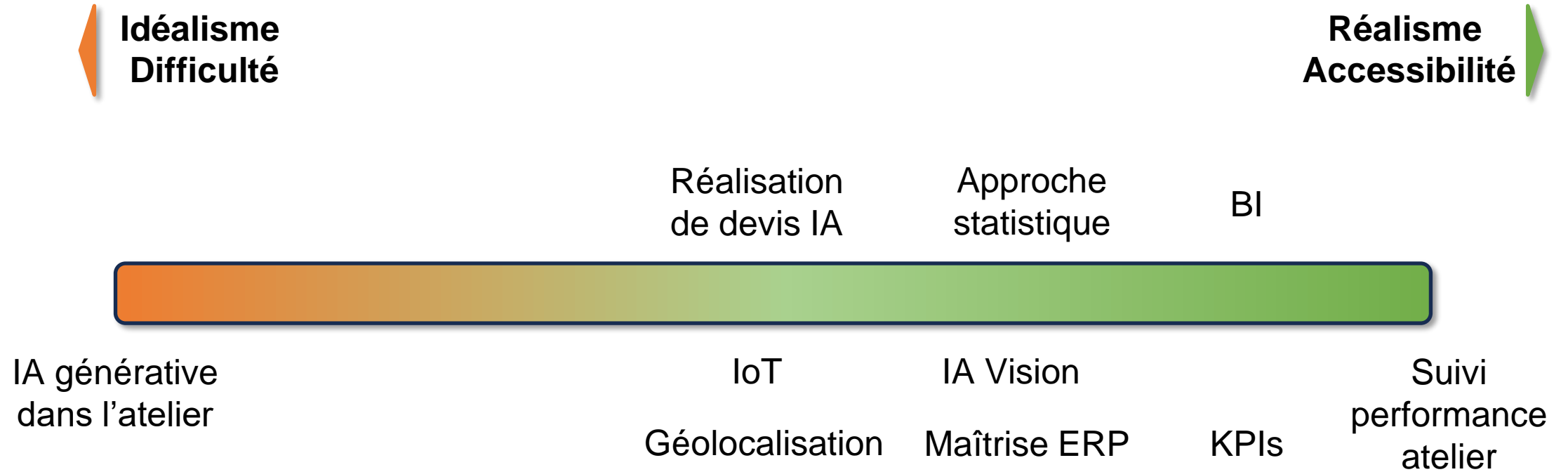


- Formations
- Maintenance et expertise à distance
- Mise au point ergonomique
- Coordination client et vente

Maturité
Compatibilité PME



Data Intelligence Artificielle



From challenges to data-driven opportunities in the manufacturing industry



Data-driven supply chains

Maximise performance and enhance decision-making thanks to more accurate **forecasts**, better **inventories** and optimized **ressources**



Smart Manufacturing

Incorporate AI in the **design** and **testing** of products, optimize your **production** to reduce **scrap** and improve **yield**



AI for Sustainability

Leverage your data to improve your **energy efficiency** while **reducing costs**. Thanks to AI, anticipate **safety issues** and reduce **risks**



New services and Personalization

Offer a wider range of **tailored products and services**, creating new market **opportunities** and enhancing **customer satisfaction**.



Data literacy to transform your operations

Upskill your business professionals with AI to **reinvent** and **automate** your processes



Data and AI offer the opportunity to augment the entire value chain

Research & Development

- Data Analytics for Market Research
- Competitive Analysis
- NLP for Document Summarization
- Product Lifecycle Analysis with NLP
- Simulation and Prototyping Assistance
- Material Selection Support
- Sustainable design
- Customized Product Design

Engineering & Planning

- Descriptive Analytics for Engineering
- Energy and utilities tracking
- Cost Estimation Support
- Production forecasting
- Worker safety and hazard control
- Capacity Planning
- Energy Consumption Reduction
- Production Scheduling Optimization

Manufacturing & Operations

- Batch Performance Optimization
- Production Quality Control
- Parameters Analyzer
- Predictive maintenance
- Outcome Prediction
- Visual Inspection
- Anomaly Detection and Root Cause Analysis
- Prescriptive Maintenance
- Process optimization
- Digital Twin

Supply Chain & Logistics

- Demand forecasting
- Supplier Quality Assessment
- Distribution spatial footprint
- Inflation Modeling
- Route optimization
- Inventory Allocation Optimization
- Delivery Dock Optimization
- Supply Chain Risk management

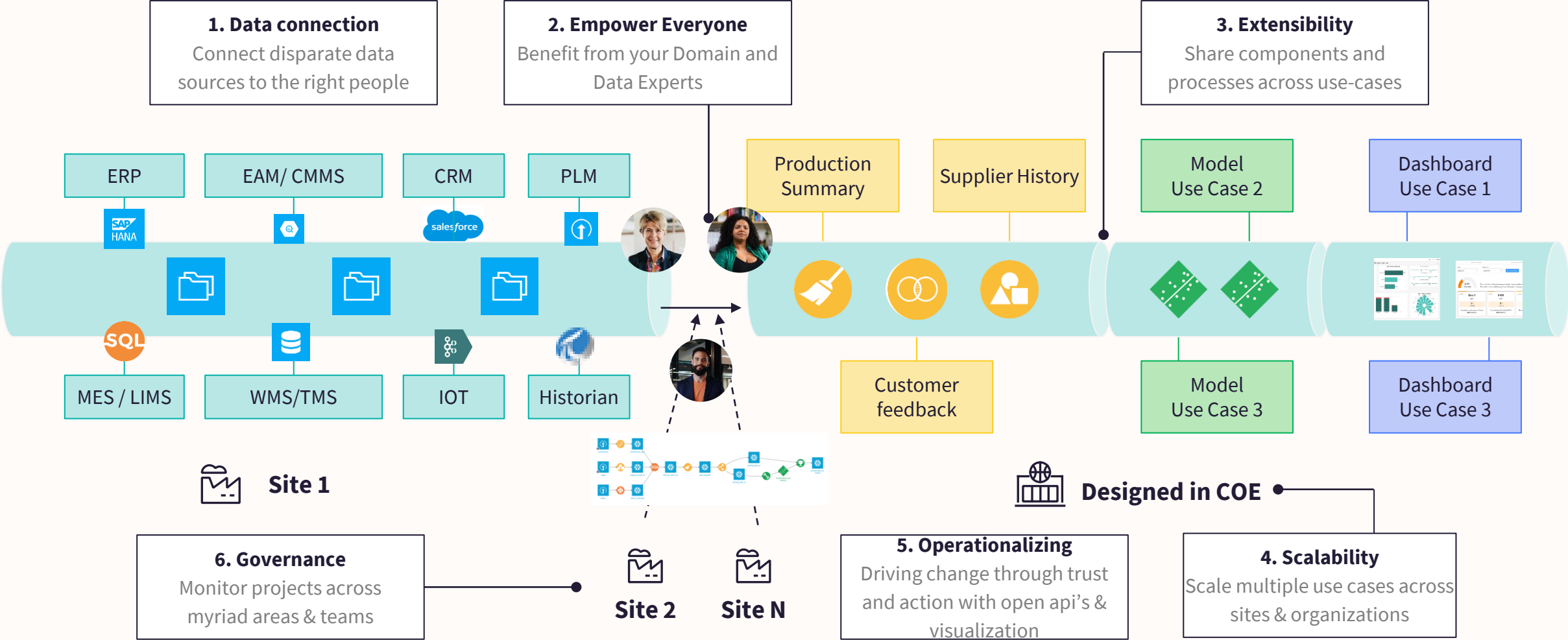
Sales & Customer

- Customer Segmentation
- Customer Lifetime Value Forecasting
- Customer Satisfaction Reviews
- Sales forecasting
- Market Basket Analysis
- Pricing optimization
- Product Recommendation

Transversal & Corporate

- Finance & Accounting
Financial forecasting
- Risk & Audit
Fraud detection
- Operational Efficiency
Process Mining
- HR Employee attrition
Job position attractiveness
- IT / Cybersecurity
Cyber security failure detection
- Sustainability
Supply CO2 impact modeling
Document Intelligence ESG
Factories Electricity & CO2
Emissions Forecasting

Leverage data experts & empower technical experts for scalable & repeatable value



GE Aviation: Making the use of Data and Everyday AI 'normal'

Creating a culture of data-driven decision-making to elevate everyone and transform the way they work with data.

Self Service Analytics @ Scale	+2000 Users, Physics-based engineering	+3000 Data products created	+800 Automated projects	+400 MM\$ In annual benefit	<2 minutes to review, audit and promote projects to production
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A data-driven culture



You would never be able to hire enough data professionals to meet the data demands of the business, **so why not turn the business into data professionals?**

Jon TUDOR

Director of Data and Analytics

Empowerment

- **Training & support program with 1000s** of graduates worldwide
- Obtained **leadership buy-in** with a dedicated Executive Course
- Conducted over **200 self-service office hours**
- **Faster & Simplified data access** for all users
- **Champions Program**

Governance

- **Built-in checks and balances** to meet rigorous data quality and governance standards
- Manage **proper access right**
- **Automatic checks** if a project has been run in the last year to save \$ + alerts
- Over 10 Dataiku DSS **instances for 1000s of users globally**



Accelerate

- Generated over **3000 data products**
- Over **150 datasets widely repurposed** across the business
- Projects can be **moved to production in under 2 minutes**
- Over **800 projects automated**

Building Fast Time Value AND Foundations To Scale

Grow capabilities gradually, based on your maturity level and needs

STRATEGY		Business Alignment	Organization & Funding	
			Data Driven Program	Data Governance
			Value Realization	
PEOPLE			Evangelization	Community
			Onboarding & Training	Process Change
			Enablement & Support	
DELIVERY		Product Creation	Use Case Scoping	Pipeline
			Deployment	Modularization & Reuse
ECOSYSTEM		Operations		
		Data Ecosystem		
		Data Infrastructure		

Tendances Au-delà du buzz



Intelligence artificielle

- L'IA générative va trouver sa juste place
- Nous entrons dans l'ère de l'IA invisible, logicielle, spécialisée et API-sable

Cybersécurité

- La cybersécurité IT/OT va prendre une place croissante

Systèmes d'information

- Les enjeux d'architecture IS seront plus critiques que jamais
- Mais l'ERP restera au cœur des problématiques IS industrielles

Business models

- La transformation des business models promise par le 4.0 va encore marquer le pas

Réalisme industriel

- La robotisation et les technologies frugales vont encore se développer
- Les fondamentaux industriels vont revenir sur le devant de la scène pour tirer le meilleur parti des technologies



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