The Digital Utility

How IoT, Software and Data Science Will Reshape the Electricity Industry

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Transformation

Flat Demand

Renewables Growth

Low Prices

Asset Write-Offs

DER Growth

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Innovation

Urbanization

Climate Change

Social Impact

Electrification

Transportation

Buildings

EVs

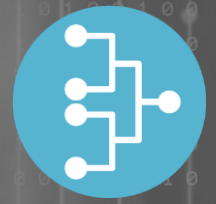
Homes

Digital Transformation of Electricity

$387B
Eliminate Downtime

$60B
Digitalize Maintenance

$191B
Match Supply & Demand



$68B
Aggregate Supply

$59B
Integrate Storage

$69B
Energy Management

$1.3T
Economy

$2.0T
Society

WORLD ECONOMIC FORUM

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Behind The Meter

Nuclear

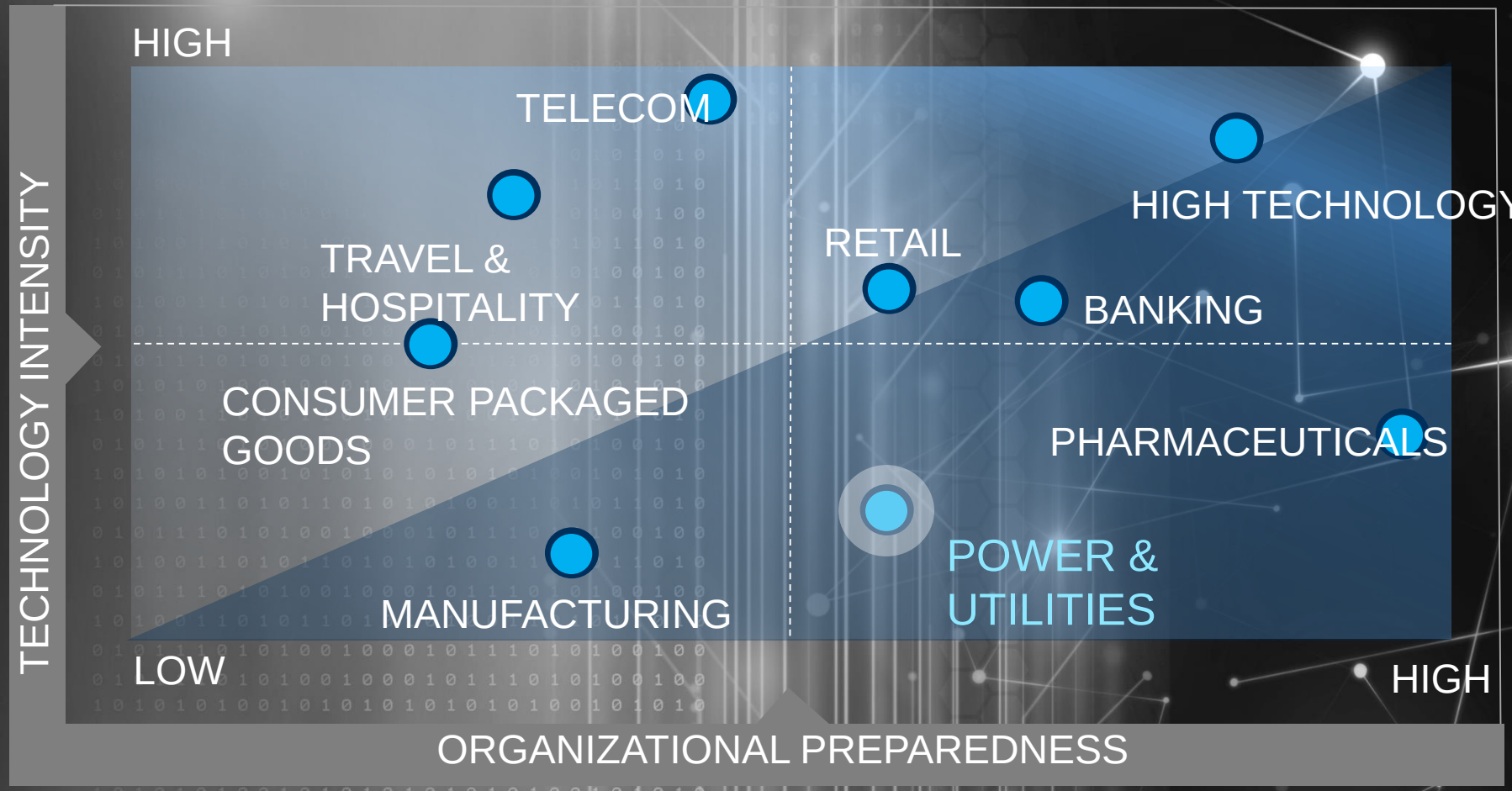
Renewables

Fossil

Distributed Energy

Transmission & Distribution

DIGITAL MATURITY



Source: MIT Sloan Review, Strategy& Analysis

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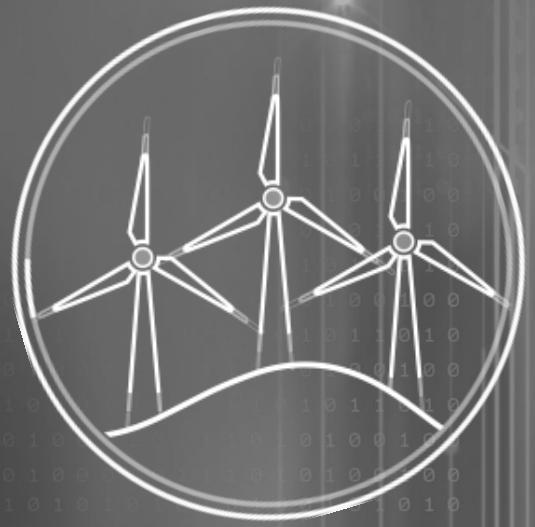
2TB

Data Per Day



10s

Every 10 sec
Data Capture

600MM

Smart Meters

5MM

Smart Thermostats
125% Growth

By 2020, 7 Billion Connected Assets

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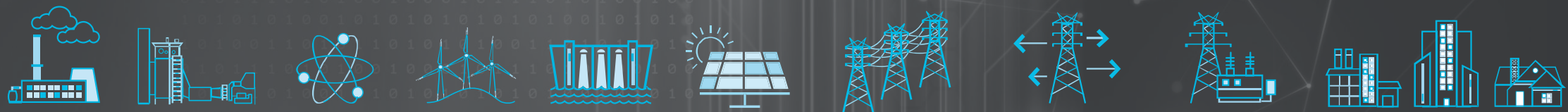
Digital Utility Portfolio

Business Optimization	Profitability	Commercial
Operations Optimization	Productivity	Operations
Asset Performance Management	Reliability	Maintenance

Digital Worker

PREDIX

Cyber Security



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50+ Digital Journeys Started on Predix

↑ **20%**
Power

↓ **6%**
Emissions

↑ **20%**
Availability

↑ **3%**
Efficiency

↑ **5%**
Reliability

↓ **25%**
O&M Costs

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Exelon
HUBCO
nrg
GMR
TEPCO
New York Power Authority
الشركة السعودية للكهرباء
Saudi Electricity Company
Empowering Energy
راس غاز
RasGas
sembcorp
HALMORE POWER
OMU
Pakgen Power
AES
the power of being global
Invenergy
Sapphire
SNP
a2a
PSEG
Bord Gáis Energy
Central Puerto
SPL
SAIF POWER LIMITED

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Exelon

32,700MW
62 Sites,
2000 Assets

HUBCO

$200M
Fuel Savings

nrg

GAR

$3-5M
Increased Revenue
Per Outage

OMU

Pakgen Power

AES

Invenergy

Sapphire

SNP

a2a

2.5 X
Ramp Rate
Improvement

Bord Gáis Energy

€1.2M
Savings from
Avoided Outages

SPL

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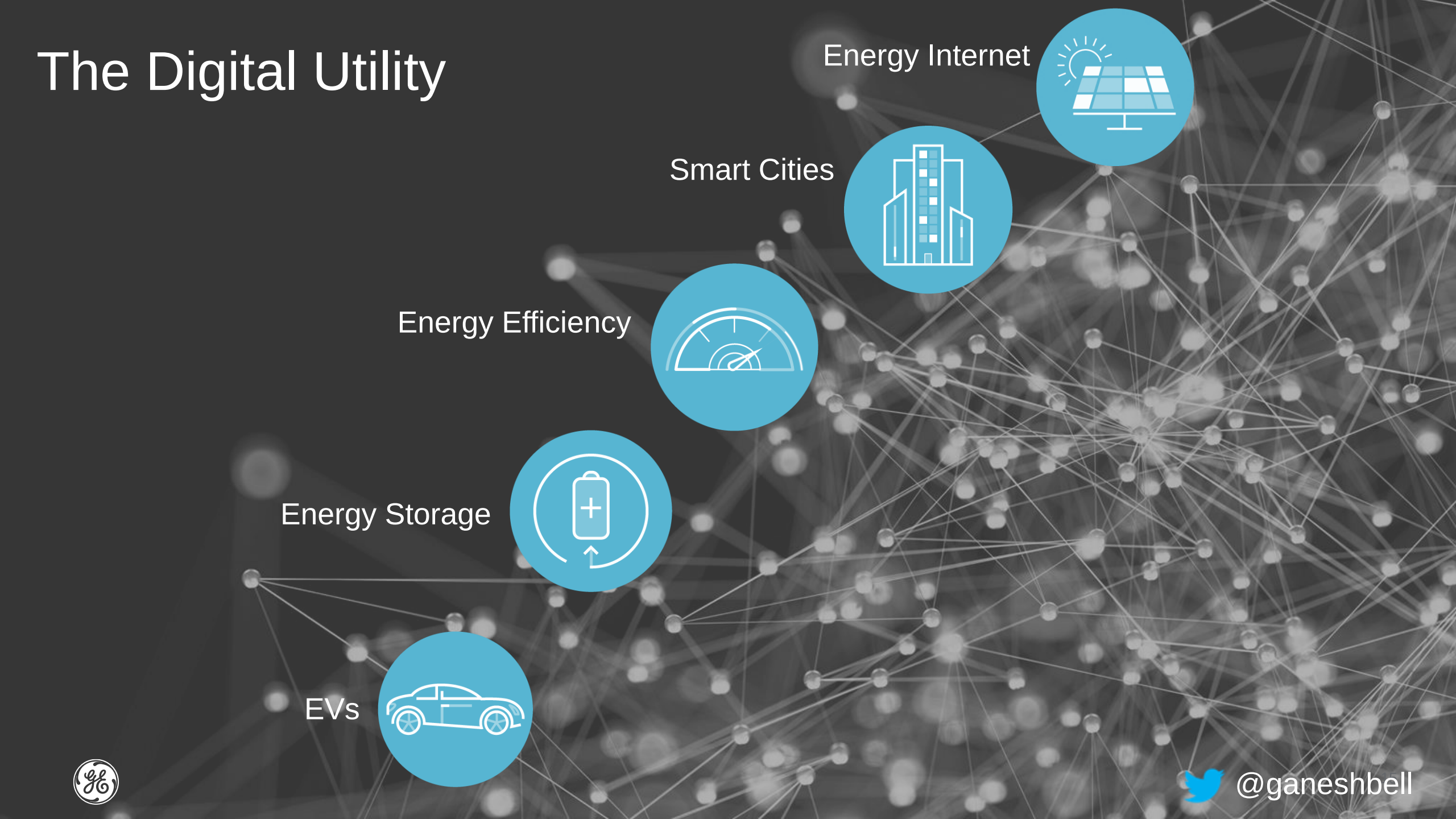

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Leading Through Transformation

Beliefs & Culture

Design Thinking / FastWorks

New Metrics

Talent

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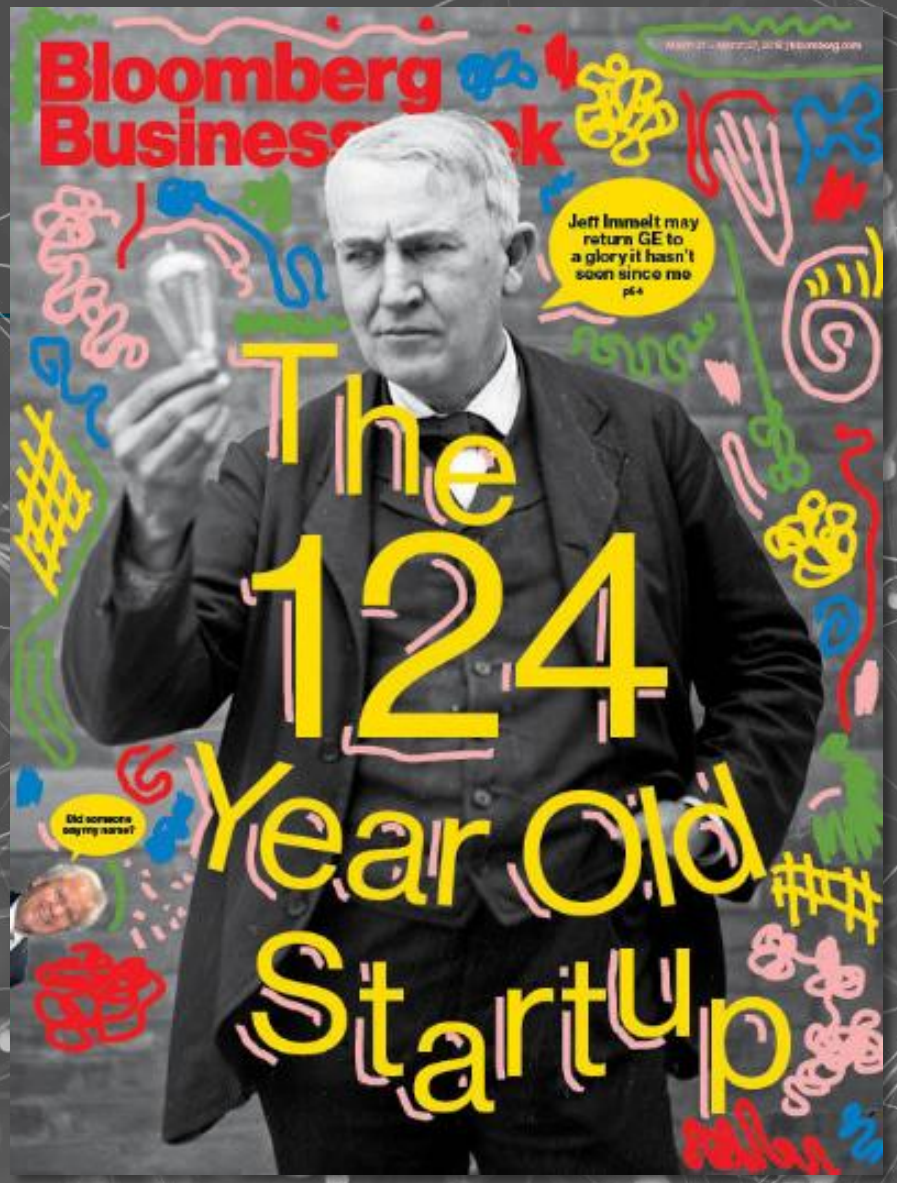
The New York Times

G.E., the 124-Year-Old Software Start-Up



$4.0B
Predix-powered and software orders

$730M
Gross Digital Thread cost productivity

~22,000
Developers on Predix

400+
Partners

~670,000
Digital Twins

250
Software applications

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