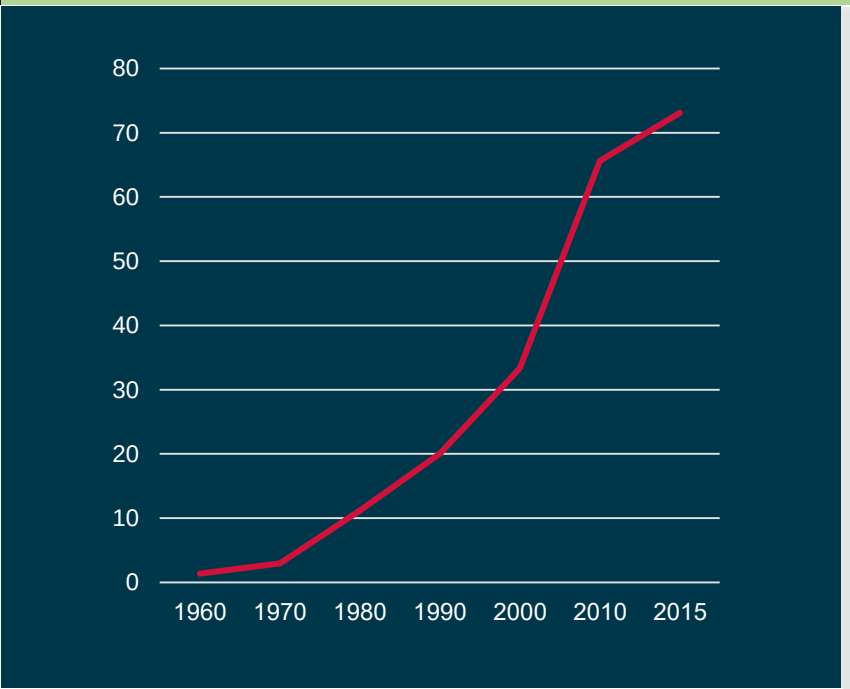
המהפכה הטכנולוגית ושוק העבודה

שלמה דוברת
שותף מיסד
ויולה

GLOBALIZATION

VIOLA

Exceptional Economical Growth



Growth in Global Trade

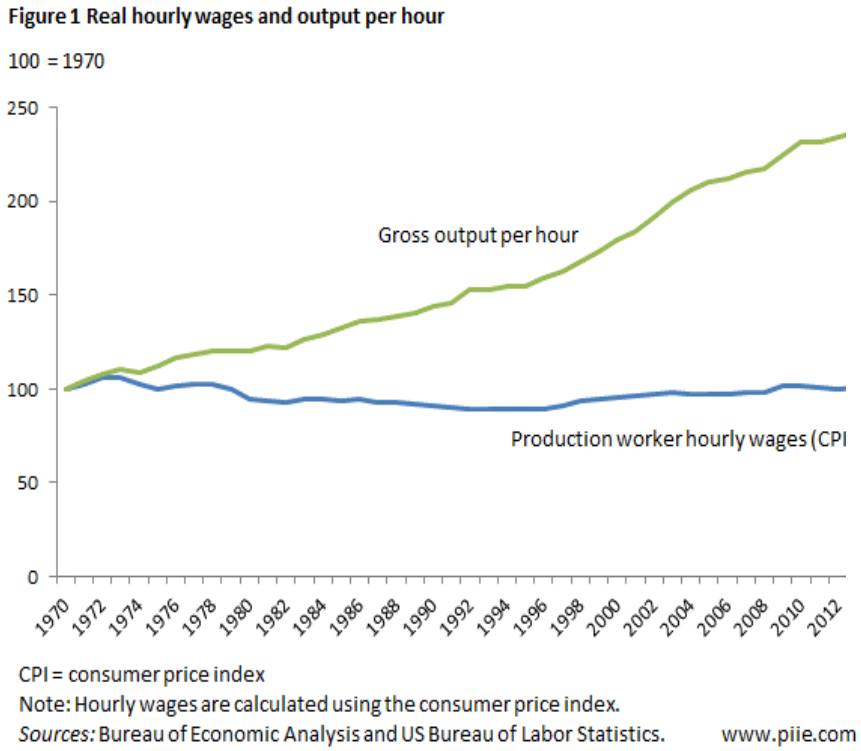
Manufacturing Goes Global

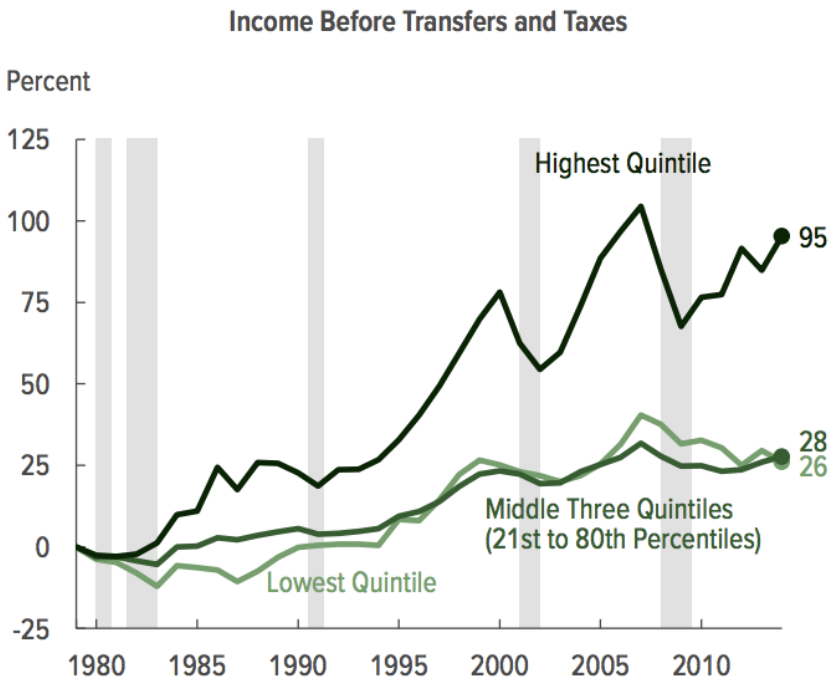
THE GOOD AND THE BAD

Productivity is Growing

Inequality is Expanding

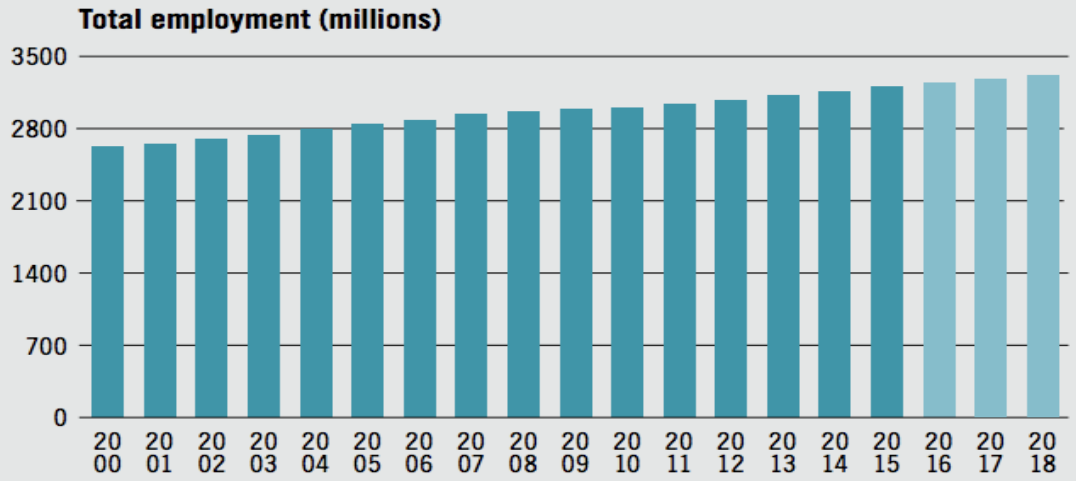
Pressures on Environment and Natural Resources



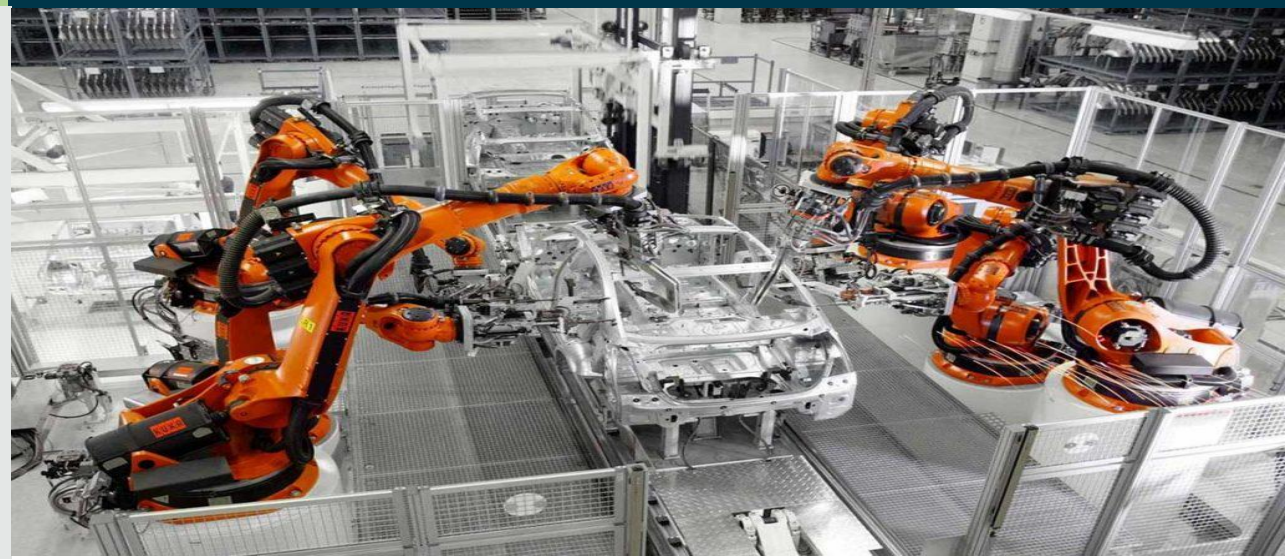


Labor market under pressure

Infinite labor supply



Massive Automation



Urbanization immigration

Aging population

SOCIAL AND POLICIAL UNREST

VIOLA

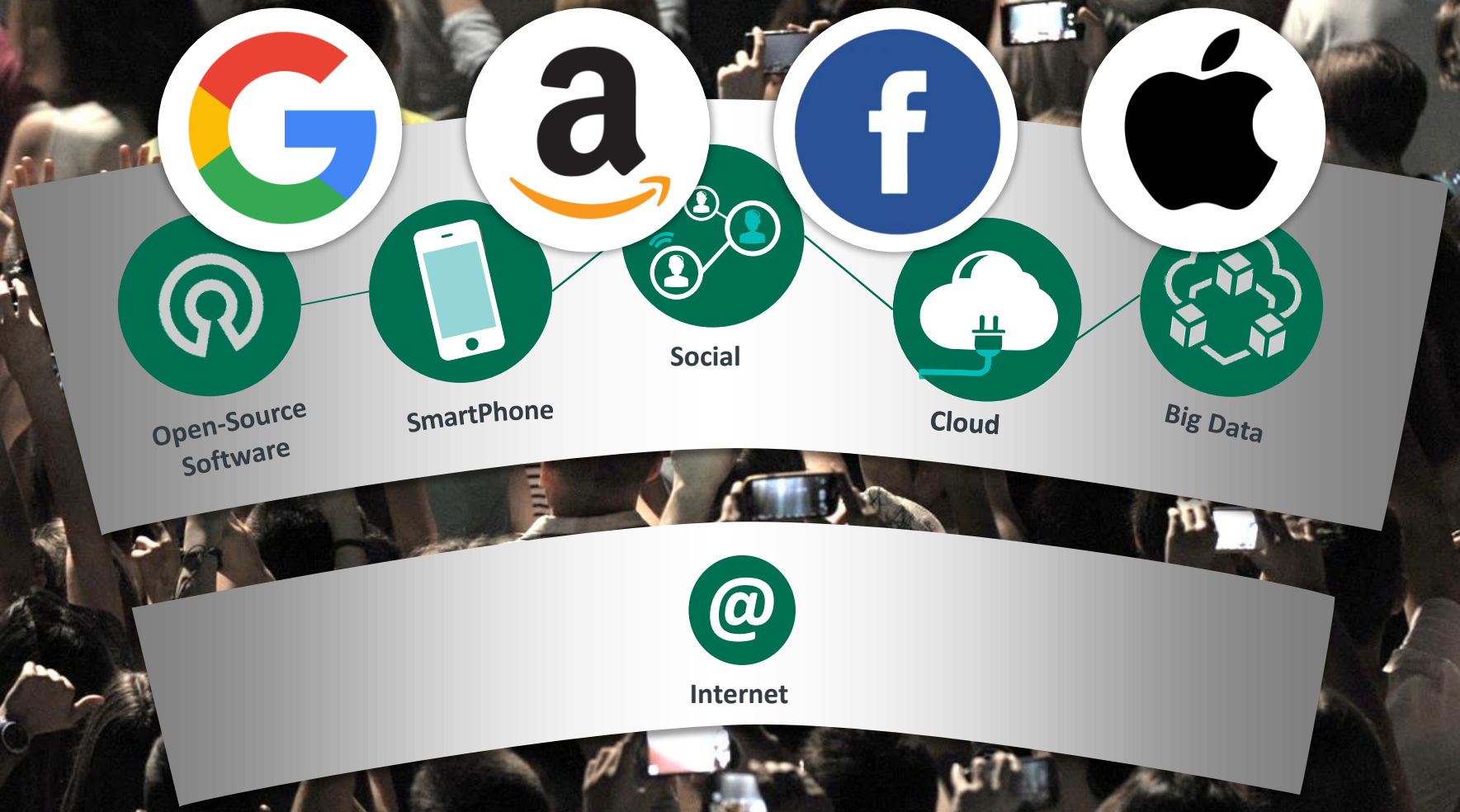
2007 – Major Disruption

New platforms have changed Human Behavior

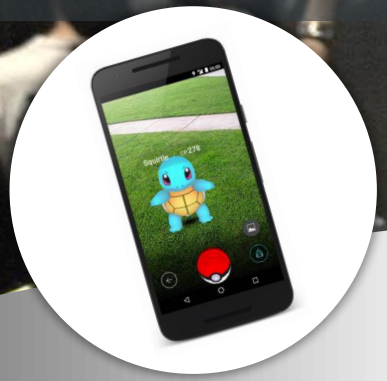
Social Sciences will have to be Rewritten

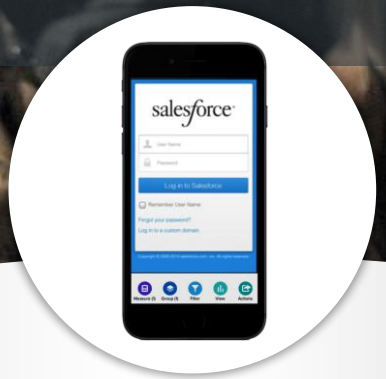
- IT as the mediator and shaper of relationships between people, organizations and communities
- Sociology, psychology and education cannot remain the same

First Came the Platforms



But Consumers Wanted More





SOFTWARE / SaaS // APPLICATIONS // PRODUCTS // GADGETS

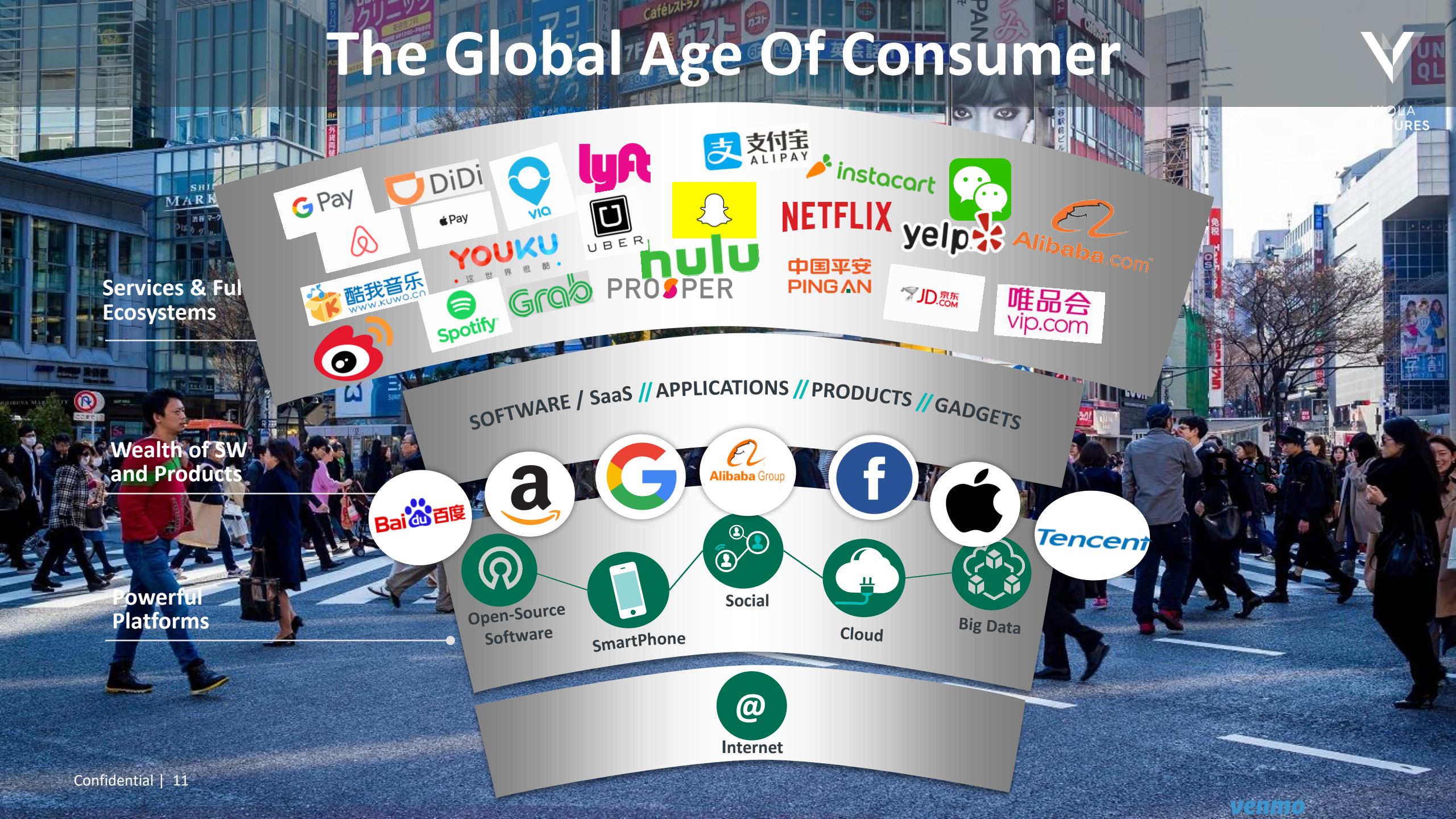
SmartPhone

Social

Cloud

Internet

The Global Age Of Consumer



ENTERPRISE – Opportunity and Survival

THE WHAT

Disrupt or be Disrupted

THE HOW

Transform or Die

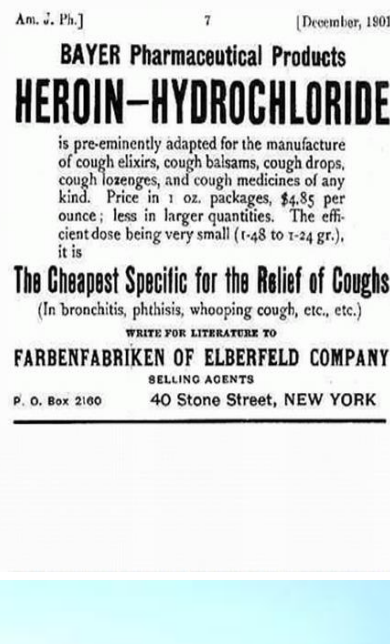
- Massive Automation
- Cloud Everything
- New Employment models

Most Industries are still Lagging

Since the … Ford Model T

First Airplanes

Early Medical Procedures



Am. J. Ph.] 7 [December, 1901

BAYER Pharmaceutical Products

HEROIN—HYDROCHLORIDE

is pre-eminently adapted for the manufacture of cough elixirs, cough balsams, cough drops, cough lozenges, and cough medicines of any kind. Price in 1 oz. packages, $4.85 per ounce; less in larger quantities. The efficient dose being very small (1-48 to 1-24 gr.), it is

The Cheapest Specific for the Relief of Coughs

(In bronchitis, phthisis, whooping cough, etc., etc.)

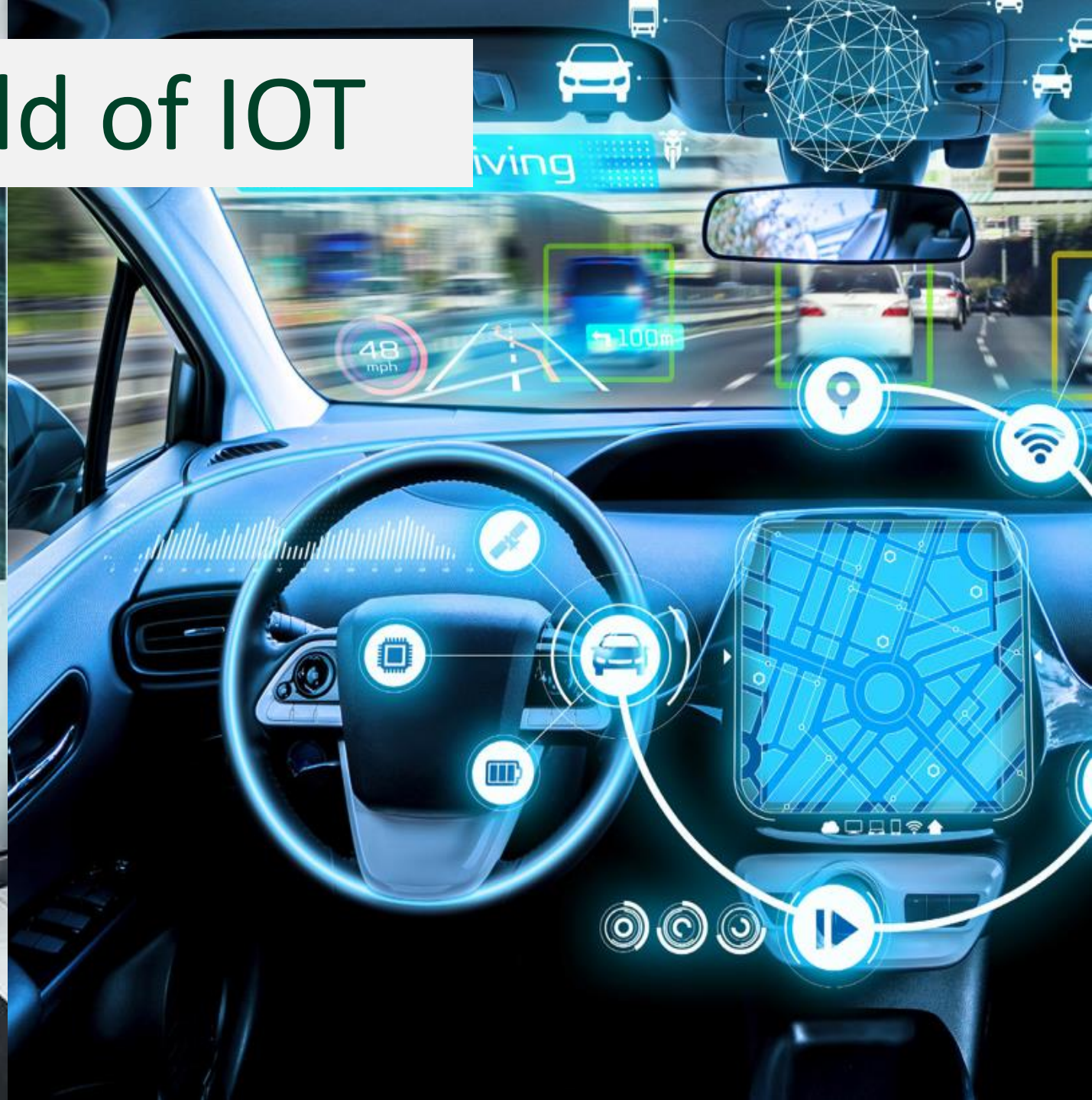
WRITE FOR LITERATURE TO

FARBENFABRIKEN OF ELBERFELD COMPANY

SELLING AGENTS

P. O. Box 2160 40 Stone Street, NEW YORK

The world of IOT



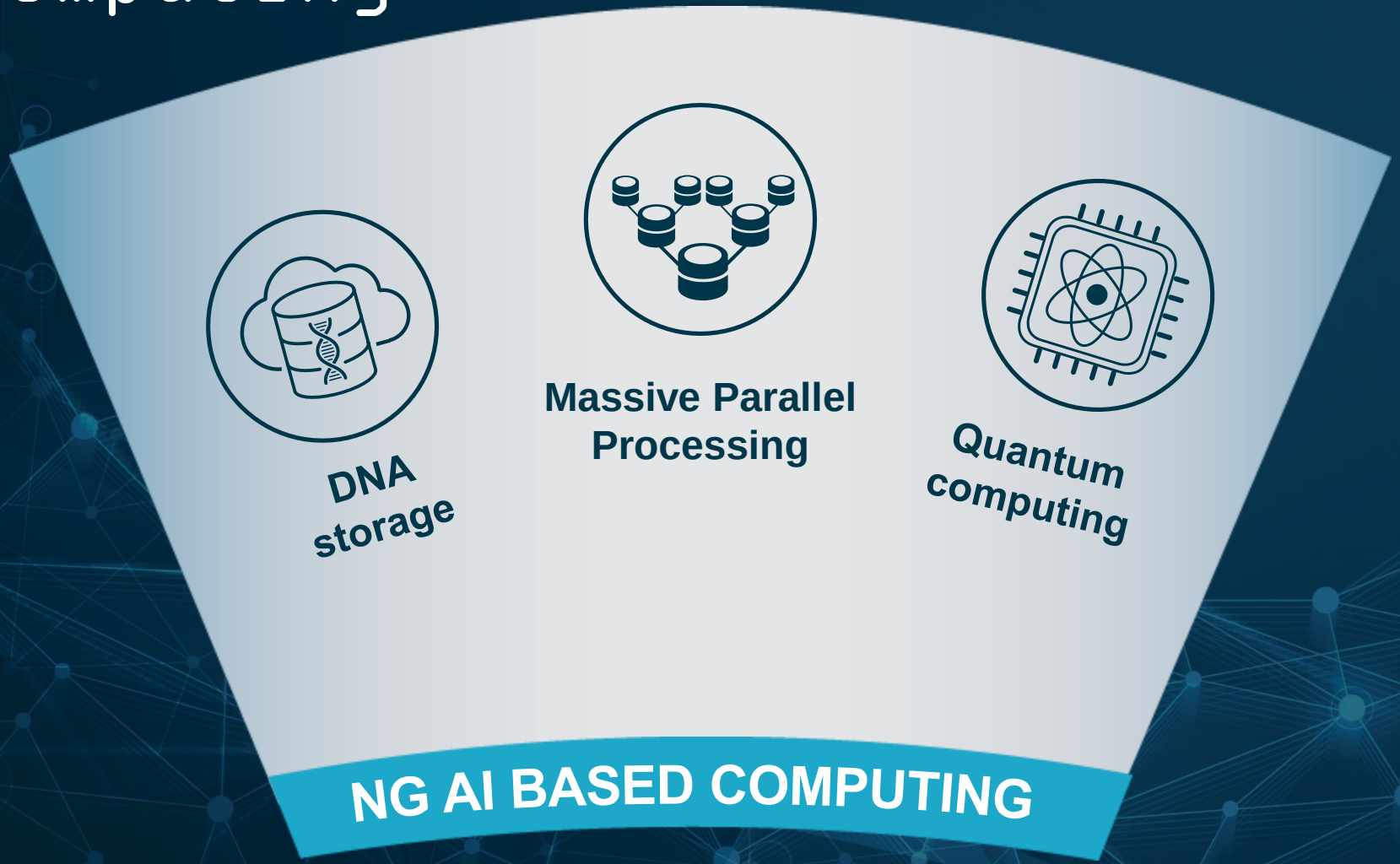
THE ERA OF ARTIFICIAL INTELLIGENCE

- **Ubiquitous intelligence**
- **Rapid development cycles**
- **Unlimited amounts of data**
- **Fraction of the cost**
- **Ever more complex problems**
- **Non linear programming**

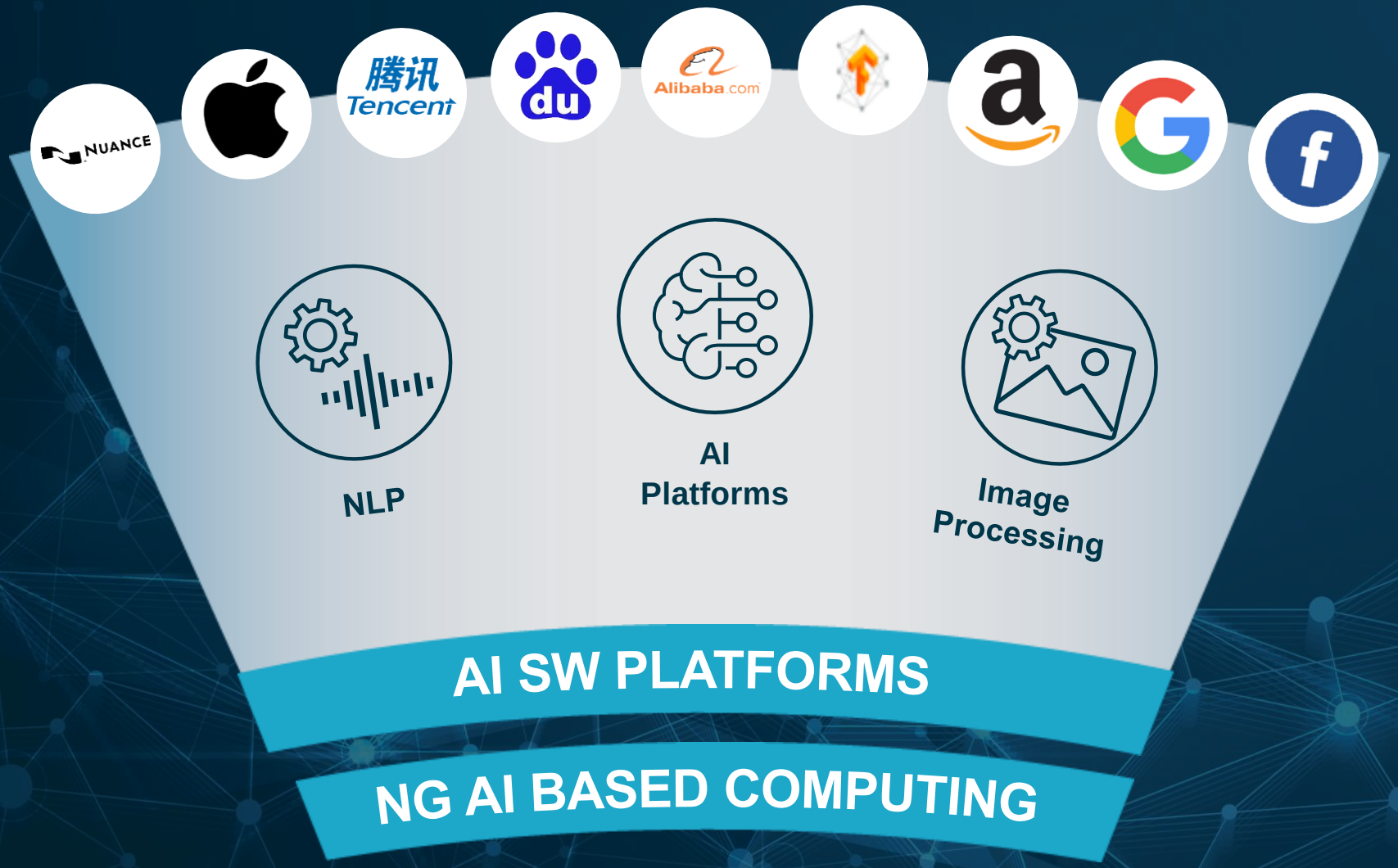
Machines Communicating and Making Decisions

AI is Changing The Whole Innovation Stack

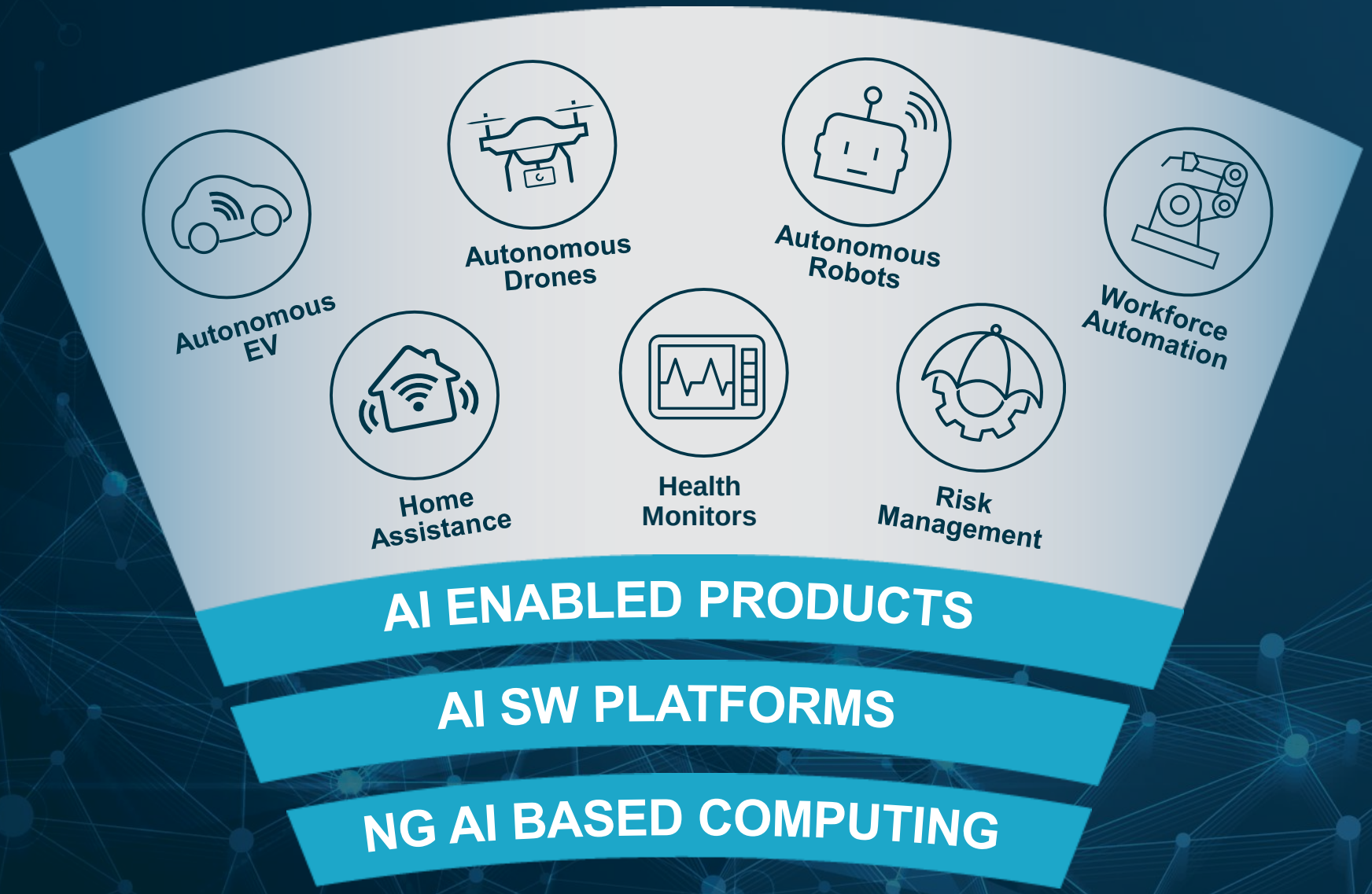
AI based Next Generation Computing

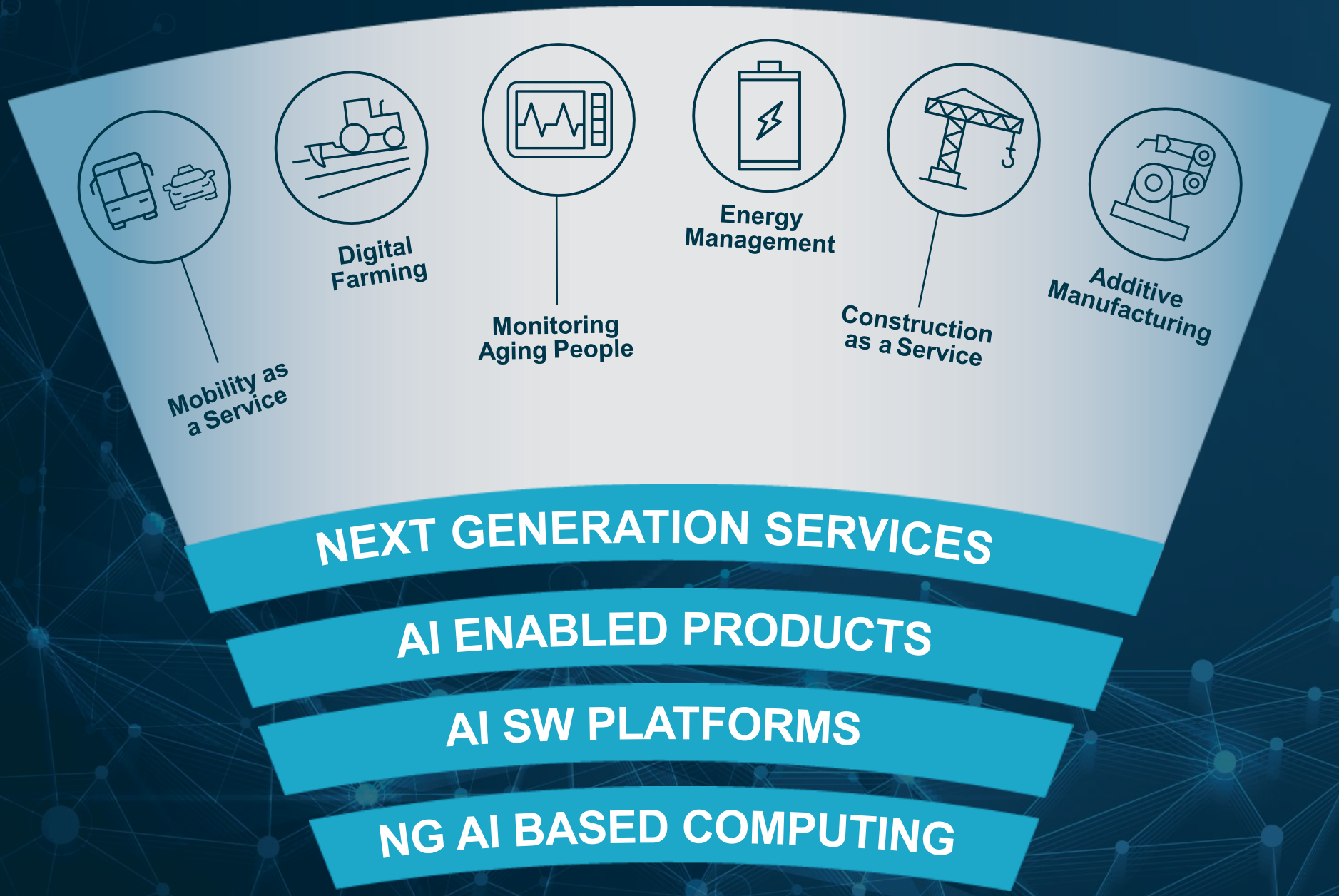


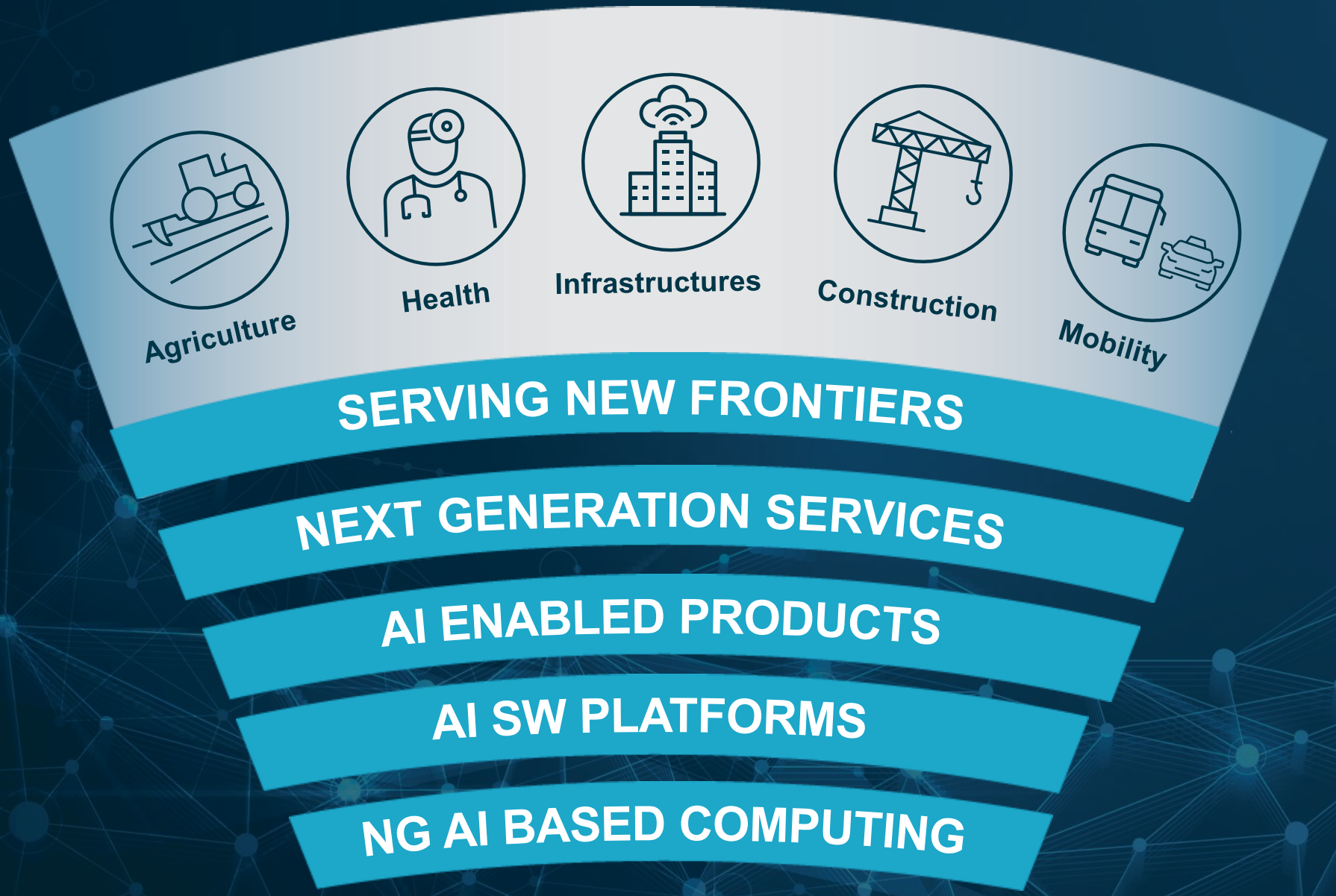
Advanced AI SW Platforms to Scale Innovation



VIOLA


Autonomous EV
Autonomous Drones
Autonomous Robots
Workforce Automation
Home Assistance
Health Monitors
Risk Management
AI ENABLED PRODUCTS
AI SW PLATFORMS
NG AI BASED COMPUTING


Mobility as a Service
Digital Farming
Monitoring Aging People
Energy Management
Construction as a Service
Additive Manufacturing
NEXT GENERATION SERVICES
AI ENABLED PRODUCTS
AI SW PLATFORMS
NG AI BASED COMPUTING


Agriculture
Health
Infrastructures
Construction
Mobility
SERVING NEW FRONTIERS
NEXT GENERATION SERVICES
AI ENABLED PRODUCTS
AI SW PLATFORMS
NG AI BASED COMPUTING

Age Of Machine:
The New Innovation Stack

SERVING NEW FRONTIERS

NEXT GENERATION SERVICES

AI ENABLED PRODUCTS

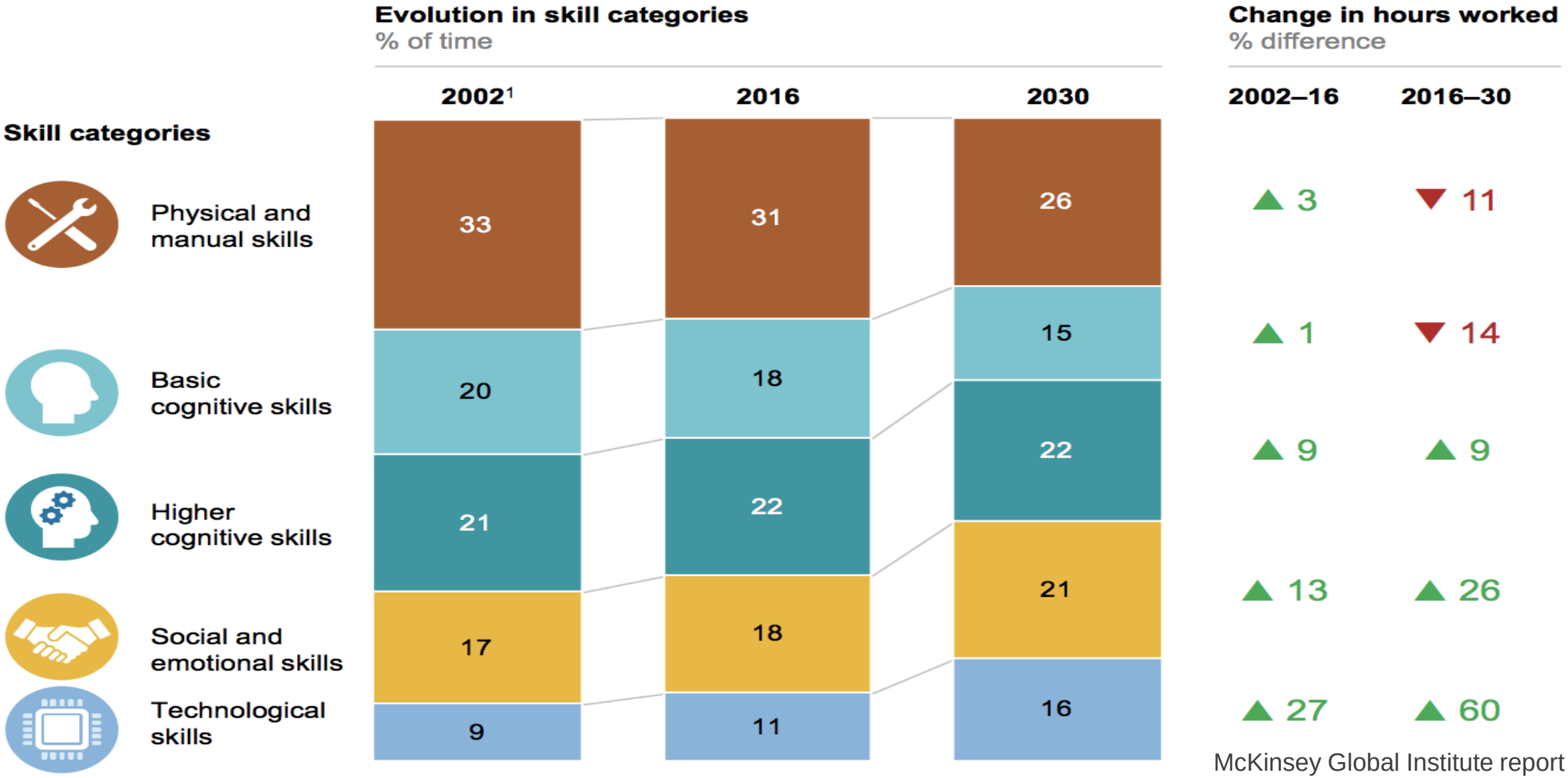
AI SW PLATFORMS

NG AI BASED COMPUTING

Automation is Likely to Dramatically Accelerate Skill Shifts, Compared With Previously Historical Cycles

McKinsey Global Institute report,
May 2018

Accelerated skill shifts



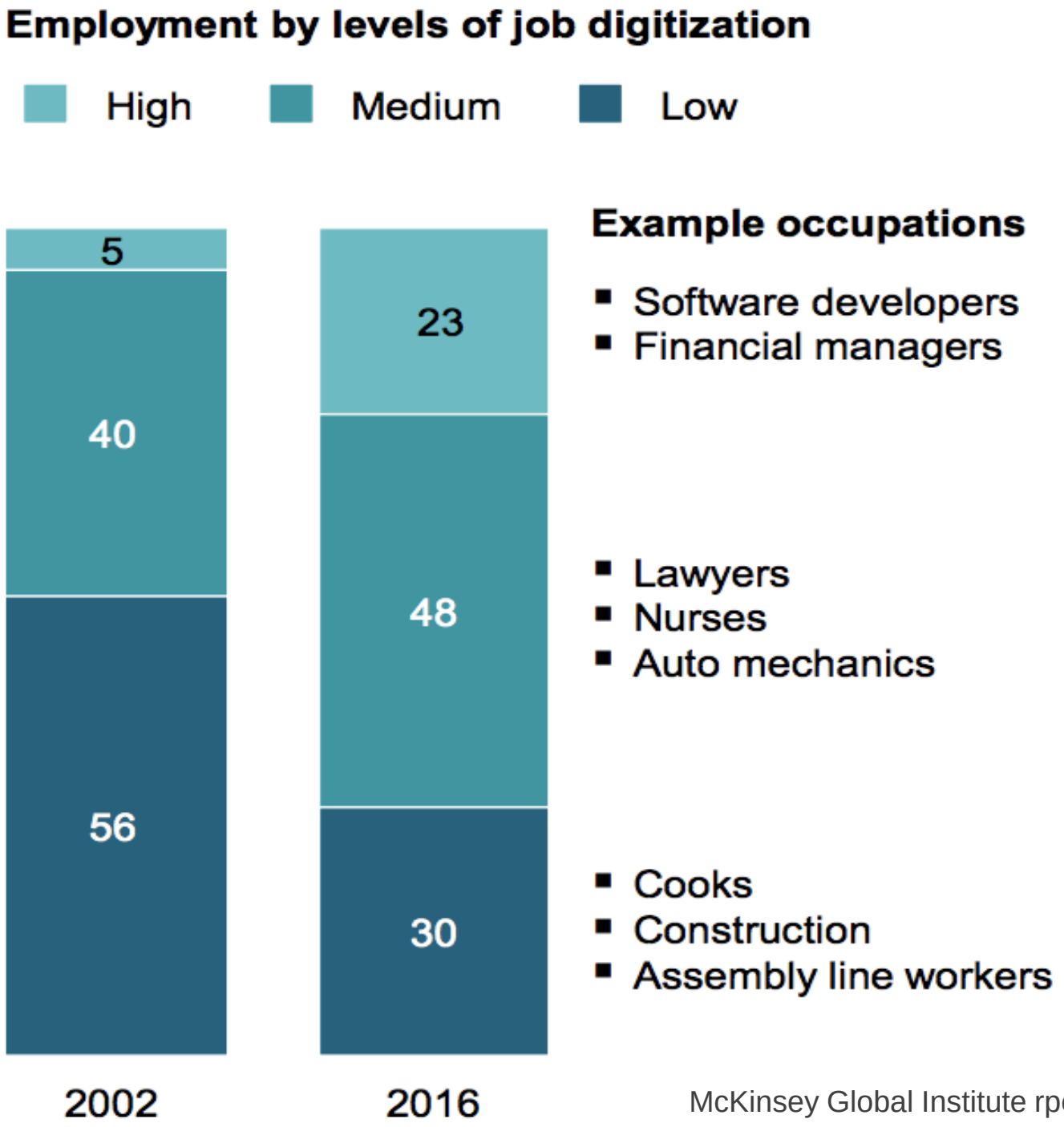
McKinsey Global Institute report

Across sectors

VIOLA

Negative Positive

Skills	Banking and insurance	Energy and mining	Healthcare	Manufacturing	Retail
Physical and manual skills					
Basic cognitive skills					
Higher cognitive skills					
Social and emotional skills					
Technological skills					



McKinsey Global Institute rpeort

Share of jobs requiring few digital skills is already dropping

Effect on Revenues

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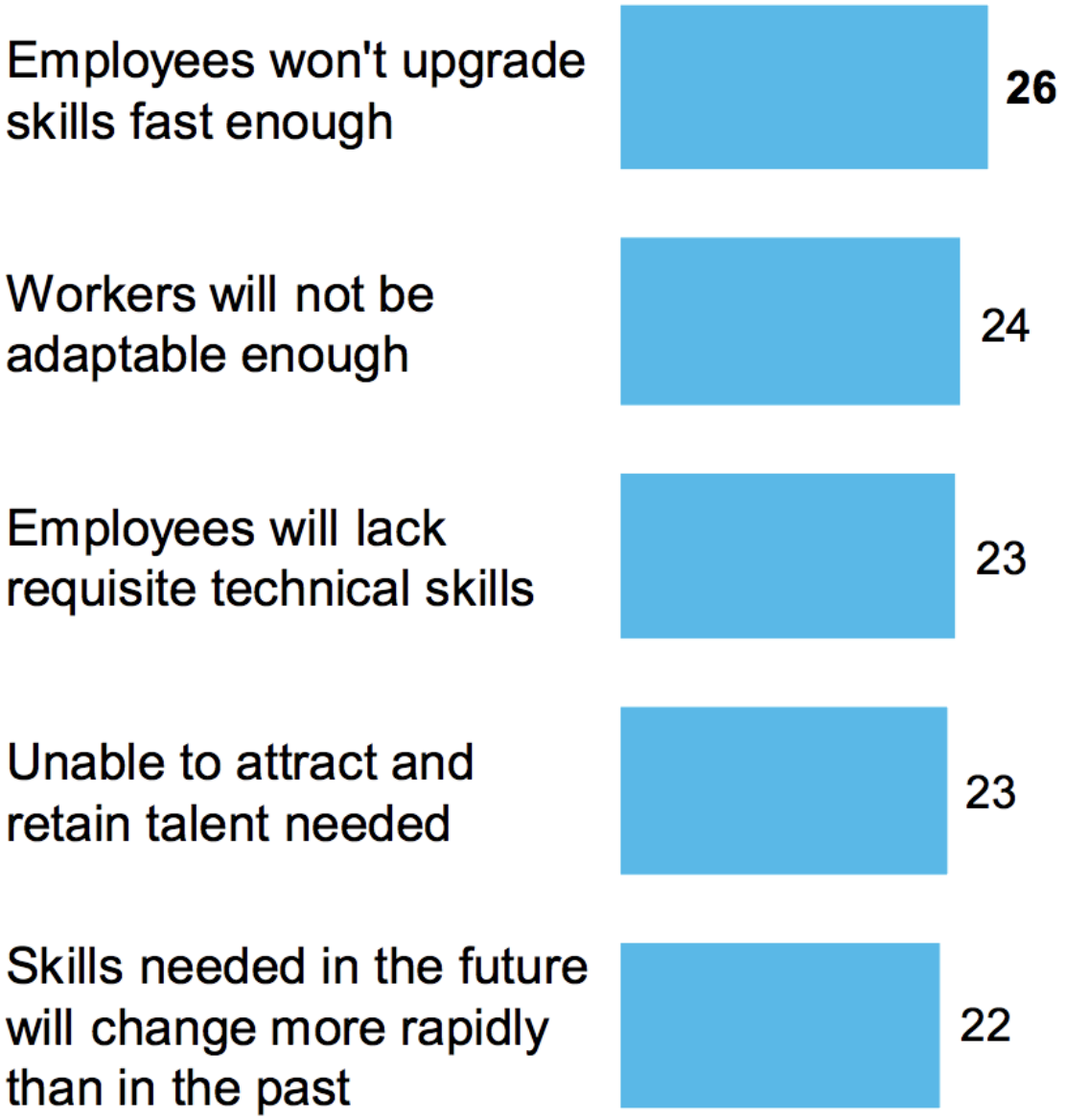
	Fundamental redesign as vision for influence of automation and AI on business model	Expected revenue increase from automation and AI >10%	Financial performance compared to industry average	Investment budget spent on digital technologies >25%
Limited adopters	23	24	45	19
Extensive adopters	38	71	82	67

McKinsey Global

Continuous learning –
The most important element for a changing workforce

Q: When you think about your organization's skill needs in the future, what are your biggest concerns?



VIOLA

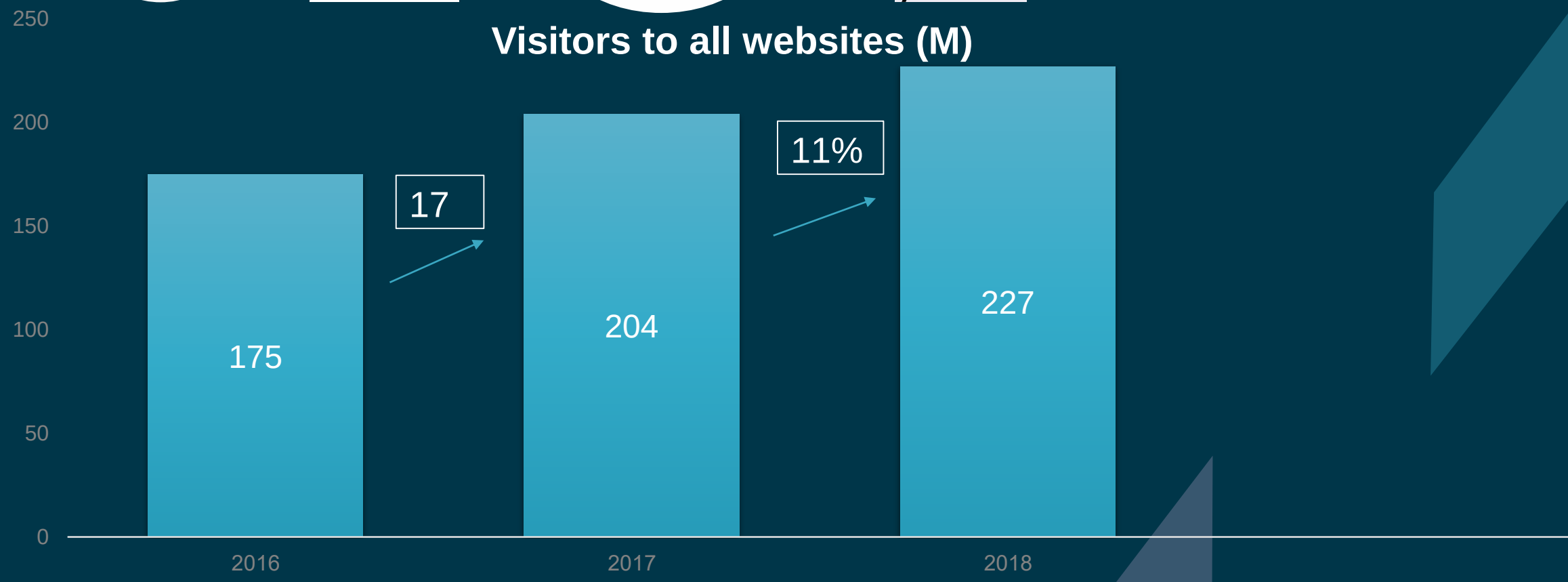
Employers main concern:

Employees that do not upgrade skills fast enough

But – There will be other stakeholders responsible for future workforce

- Firms can collaborate with educators to reshape school and college curricula
- Industry associations can help build talent pipelines
- Labor unions can help with cross-sector mobility
- Governments can strengthen safeguards for workers in transition and encourage mobility, for ex: portable benefits

Online learning platforms continue to grow



סיכום

- הגלובליזציה והטכנולוגיה מפעילים לחצים על שוק העבודה
- AI מתניע עידן חדשנות מואץ – עידן המכונות
- המהפכה הטכנולוגית תשנה דרמטית תעשיות רבות
- אוטומציה חדשה עוסקת בהחלפת אנשים בעלי כישורים גבוהים
- האצה משמעותית בשינוי הכישורים הנדרשים
- מערכות החינוך וההכשרה מפגרות ואינן מתאימות את עצמן
- לימוד מתמשך קריטי לתהליכי השינוי וההתאמה
- תהליכים חברתיים משמעותיים שמצריכים שיתוף פעולה

Thank you

sdovrat@viola.vc