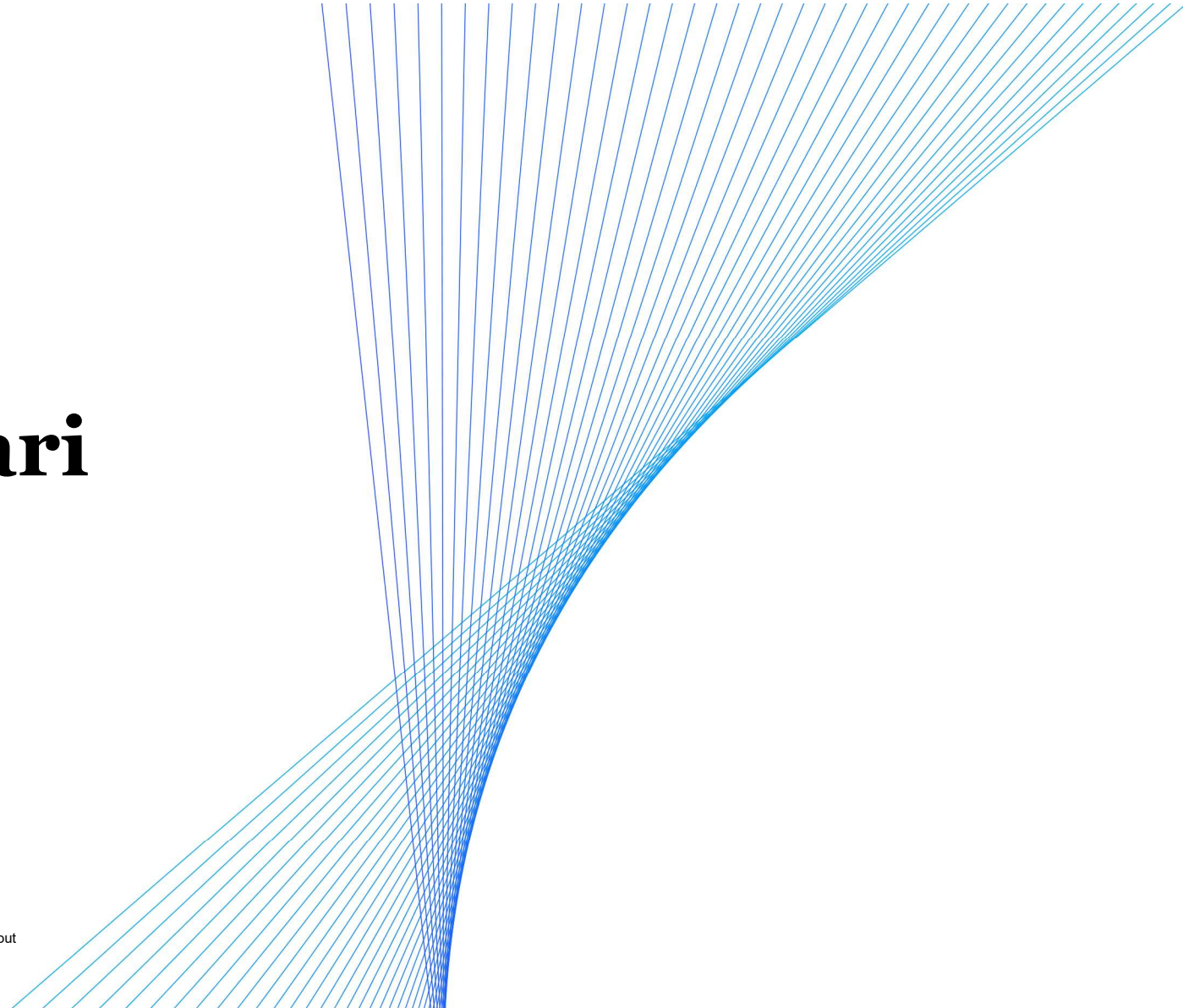


McKinsey
& Company

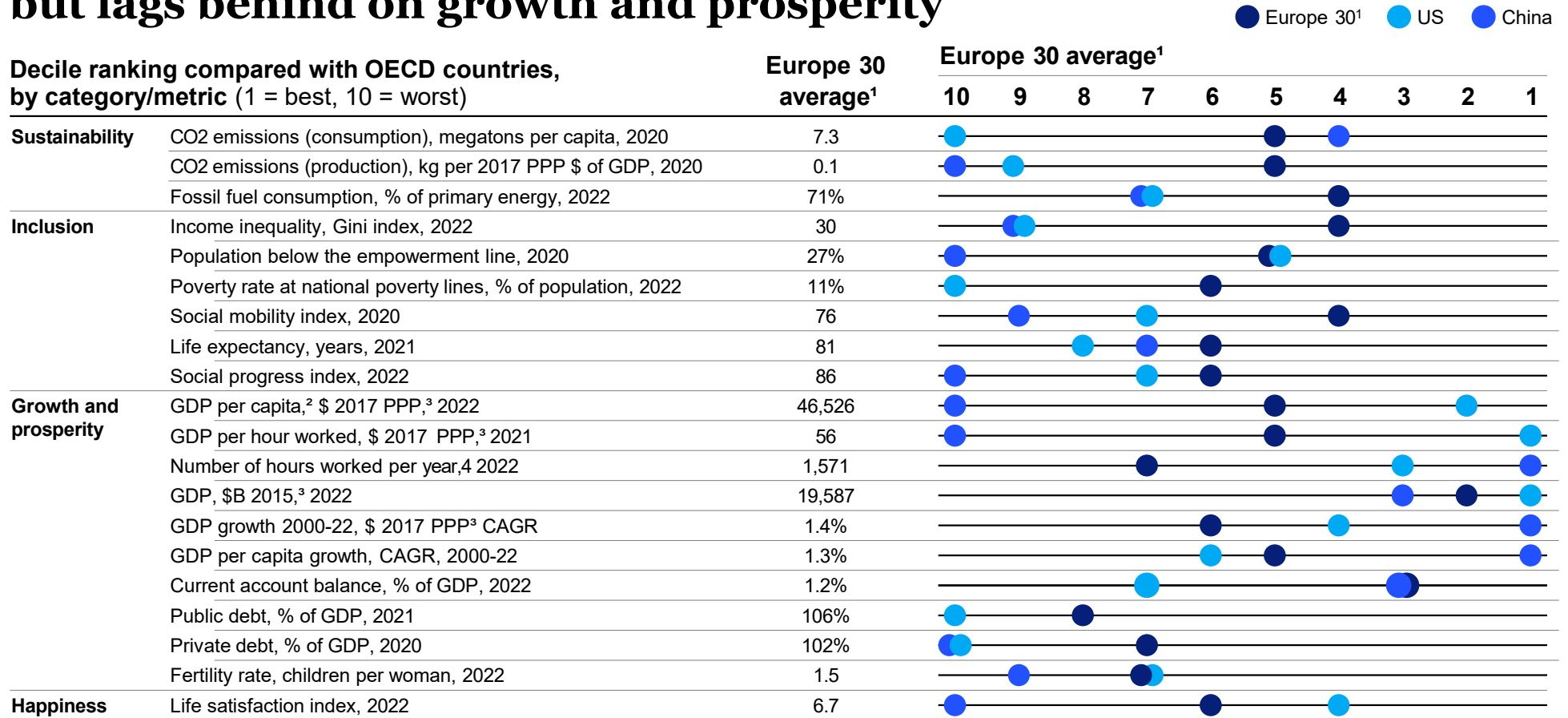
Futuri Scenari Competitivi

Napoli, 24 maggio 2024



CONFIDENTIAL AND PROPRIETARY | © 2024 McKinsey & Company.
This material is intended solely for your internal use and any use of this material without
specific permission of McKinsey & Company is strictly prohibited. All rights reserved.

Europe leads on sustainability and inclusion, but lags behind on growth and prosperity



1. Europe 30 includes the European Union plus Norway, Switzerland, and the United Kingdom.
 2. Excluding Ireland and Luxembourg.
 3. World Bank and OECD. 4. EU-27.

European corporations lag on scale and performance

■ Europe ■ USA

Public companies with revenue of >\$1 billion in Europe 30 vs US

R&D,
2015-22 weighted
average R&D
spending/revenue top
2,500 R&D spenders¹, %

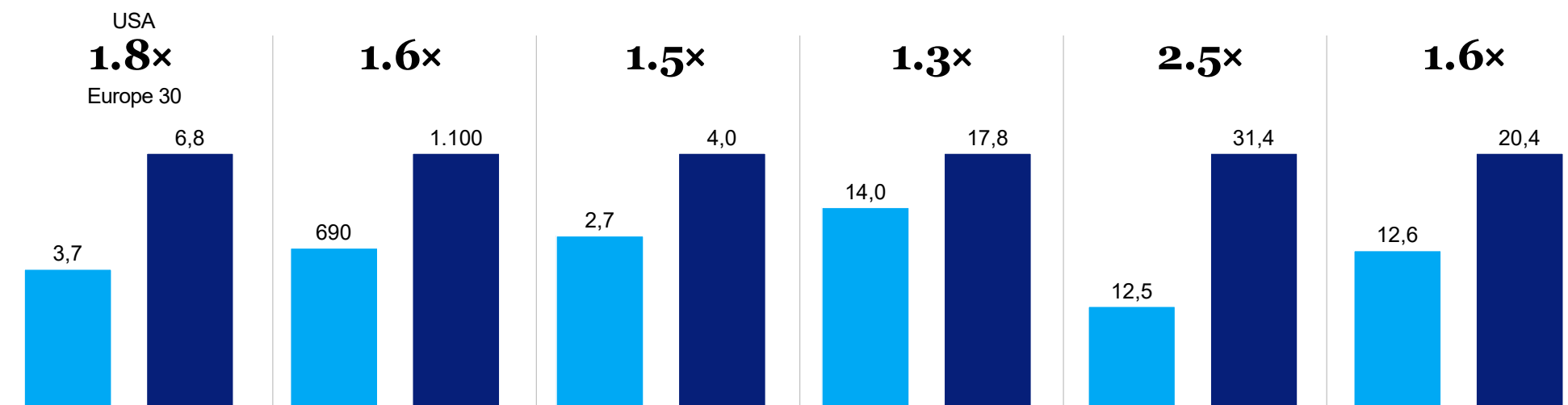
Investment,
2022, \$ billion

Revenue growth,
2015-22, weighted
average change in
revenue,^{1,2,3} %

**Return on invested
capital,**
2015-22 weighted
average NOPLAT⁴/
invested capital,^{1,2,3} %

**Market
capitalization,** 2022
total, market cap⁵,
\$ trillion

Scale,
2022 average sector
revenue of public
companies,^{1,5,6} \$ billion



1.Excludes financial services and real estate companies

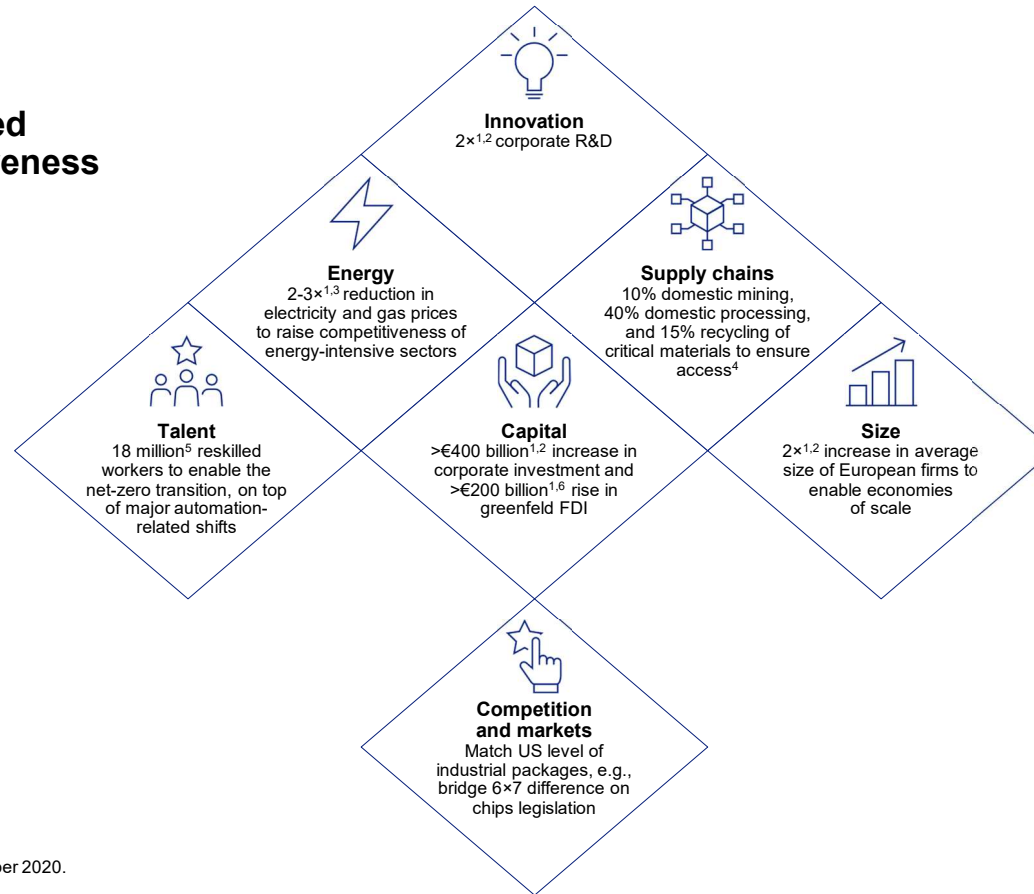
2.Inflation adjusted (2014 as base year) based on eurozone (Europe 30 sample) and US inflation (US sample); US data in \$, Europe data in €. World Bank and OECD. 4EU-27.

3.Excludes companies without complete revenue, net operating profit less adjusted taxes (NOPLAT), capital expenditure, or invested capital time series in 2014-22.

4.Net operating profit less adjusted taxes. 5End of 2022 for public companies with >\$1 billion available market capitalization and revenue. 6Average based on in-sector revenue.

Capturing the full potential value at stake requires focusing on all seven dimensions of competition

Magnitude of disruption needed to restore Europe's competitiveness in the coming years



1. Increase required to match the United States.
 2. McKinsey & Company Corporate Performance Analytics.
 3. Montel and Eurostat
 4. European Critical Raw Materials Act, March 16, 2023.
 5. The future of work and reskilling in Europe, McKinsey, November 2020.
 6. World Bank; fDi Markets
 7. European Chips Act, European Commission; CHIPS and Science Act of 2022, H.R. 4346, 117th Congress.

Source: McKinsey Global Institute analysis

There are over 60 future arenas of competition at the intersection of transversal technologies and sectors



Industrials (incl auto and defense)



Chemicals and materials (incl agriculture)



Transportation, energy, and infrastructure



Pharmaceuticals and healthcare



Consumer and retail

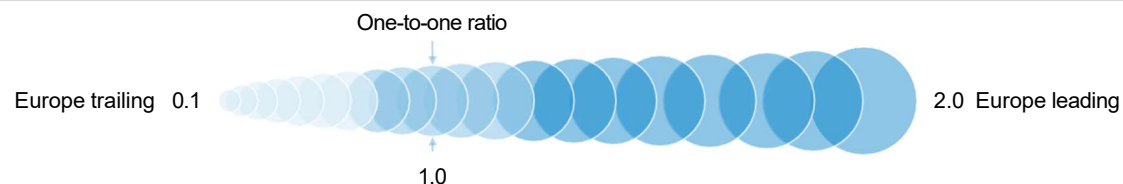


Financials and professional services

Next-level process automation	Robotics, additive manufacturing, drones, digital twins	Virtual development modelling, testing, agriculture next-generation	Modular construction, prefab, additive manufacturing, robotics	Virtual clinical trials, surgery robot, additive manufacturing	Domestic service robot, warehouse automation	—
Future of connectivity	Industry 4.0, connected cars, connected soldiers	Smart farming	Smart cities, smart power plants/grids, embedded sensors	Remote health monitoring, wearables	Wearables, smart home	—
Distributed infrastructure	Cloud and edge computing					
Next-generation computing	Quantum computing					
Applied AI	Autonomous vehicles	Precision agriculture	Last-mile drone usage, smart power plants/grids	AI imaging and diagnostics, drug discovery	Marketing analytics, speech recognition	Pricing risk analytics, auto-mated operations, tech-augmented advisory
Future of programming	Software 2.0					
Trust architecture	Cyberwar	Traceability	Smart contracts	Blockchain in supply chain and records	Smart sourcing	Blockchain, smart contracting
Bio Revolution	Industrial enzymes, exoskeleton	Next-generation crops, bioroutes for chemicals	Biopolymers, biofuels, engineered produce transportation	Gene and stem cell therapy, tissue engineering, brain- device interaction, neuro-genomics, biomolecules	Alternative proteins, microbiome- based products	—
Next-generation materials	Nanomaterials, new materials, new-generation weapons	Nanosensors, next-generation composites, syn- thetic materials/ chemical design	New materials, new construction materials	Tissue engineering	Personalization, new materials	—
Future of cleantech	Decarbonization, electric vehicle	Wireless irrigation systems, green cement/steel, recycling	Modular, virtual twins, renewables, CCS, green energy	—	—	—

Out of ten transversal technologies, such as AI, quantum computing, and cloud, Europe leads on two

Relative European position vs leading or second-best region on a range of metrics, multiple¹



Transversal technologies	Keywords	Innovation ²	Production ³	Adoption ⁴	Average
Next-level automation	Industrial, collaborative, and professional robots; additive manufacturing; virtualization	0.6	1.0	0.7	0.8
Future of connectivity	5G, Internet of Things	0.7	0.7	0.3	0.6
Distributed infrastructure	Cloud, edge computing	0.2	0.1	0.7	0.3
Next-generation computing	Quantum computing, neuromorphic software	0.5	n/a	n/a	0.5
Applied AI	Robotic process automation, optimized decision making, natural language processing, computer vision, speech technology	0.5	<0.1	0.8	0.4
Future of programming	Software 2.0, no-code and low-code programming	0.3	<0.1	n/a	0.2
Trust architecture	Blockchain, zero-trust security/cybersecurity	0.3	0.3	0.6	0.4
Bio Revolution	Biomolecules, biosystems, bio-machine interface, biocomputing	0.8	0.4	0.5	0.6
Next-gen materials	Nanomaterials, composite materials	0.7	2.0	1.2	1.3
Future of cleantech	Solar power, wind energy, hydropower, nuclear, electric vehicles, hydrogen	1.3	0.4	1.2	1.0
Average		0.6	0.6	0.7	

1. For instance, if Europe issues 200,000 patents per year related to automation vs 400,000 a year in the United States, the multiple is 0.5 times.

2. Average number of the ratios based on number of publications, number of patents, and venture capital funding (\$ billion).

3. Average number of the ratios for top ten companies on market share (%), market capitalization (\$ billion), and corporate or private equity funding (\$ billion).

4. Average number of the ratios based on public investment (\$ billion), penetration (count per capita), and end-market share (%).