



中国科学院大学
University of Chinese Academy of Sciences

Talents Training in Economics & Management in the Digital Era – A Chinese Perspective

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- 1 **Digital Economy and Globalization**
- 2 **New Challenges for Talents Training**
- 3 **Chinese Approaches: The Case of UCAS**

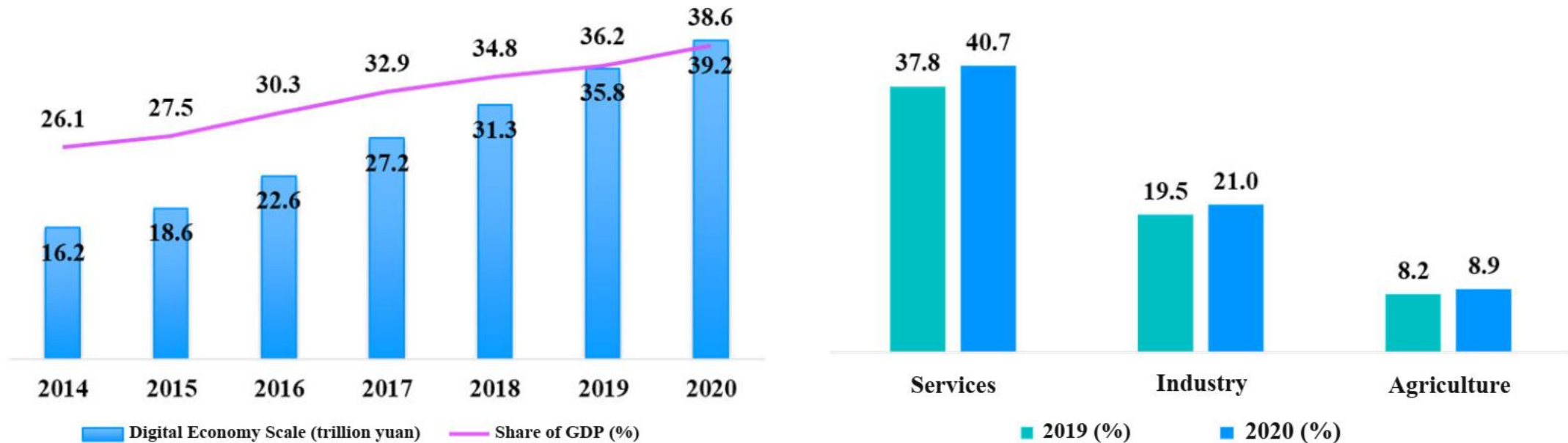


Digital Economy and Globalization

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1. Digital Economy and Globalization

- Big Data and AI have been changing the ways of productions and lifestyles, stimulating a rapid development of digital economy.



Digital Economy in China

Source: 2021 Global Digital Trade White Paper

1. Digital Economy and Globalization

Guizhou Big Data Center



Fuzhou Big Data Center



1. Digital Economy and Globalization



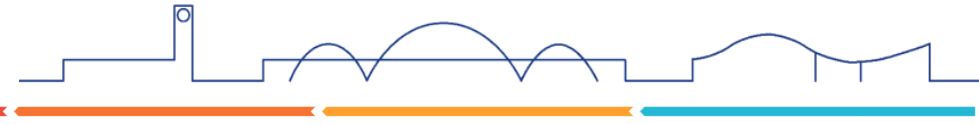
QR Code Payment



Self-checkout with WeChat Pay



1. Digital Economy and Globalization



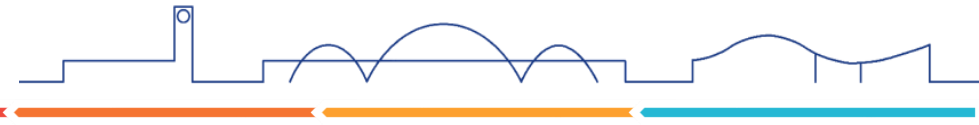
Takeout delivery and algorithm



Medical robots during the pandemic



1. Digital Economy and Globalization

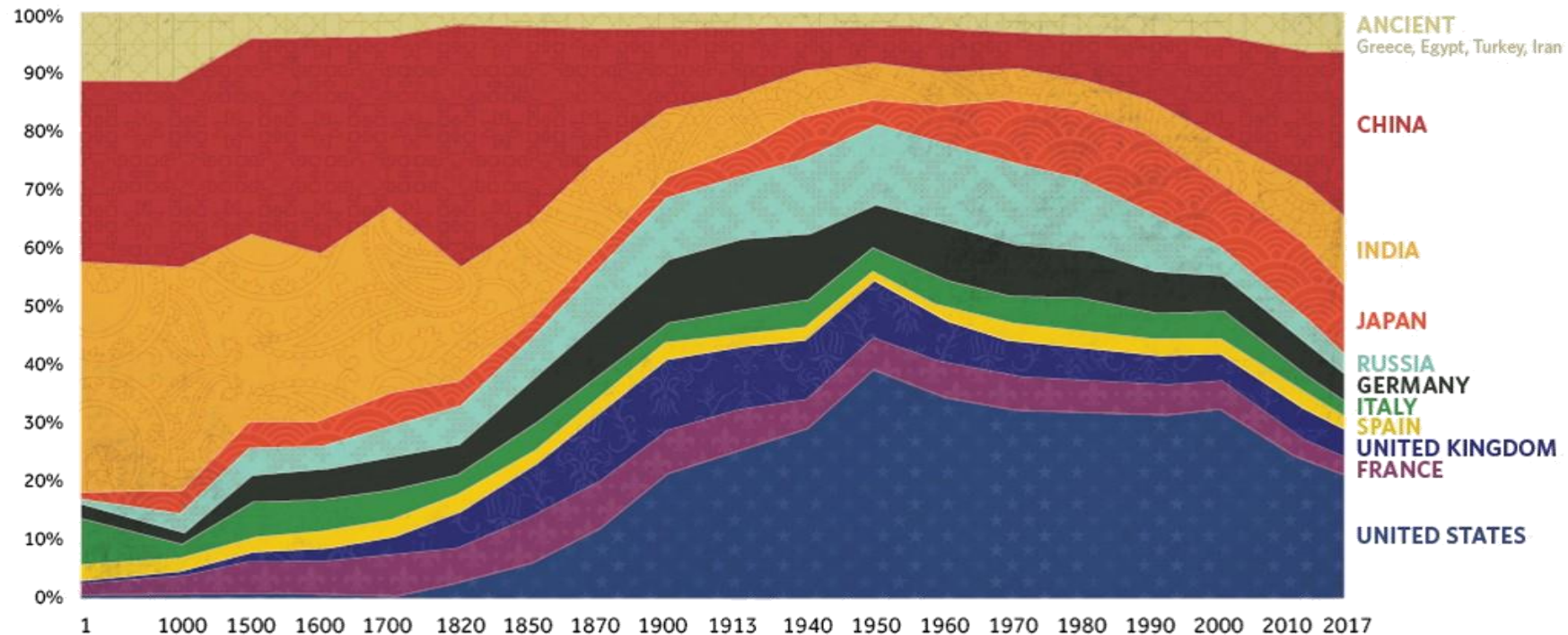


- Since 1978, China has adopted a reform and opening up policy, witnessing a fast economic growth over the past 40 years.

2,000 YEARS OF ECONOMIC HISTORY IN ONE CHART

All major powers compared by GDP from the year 1 AD

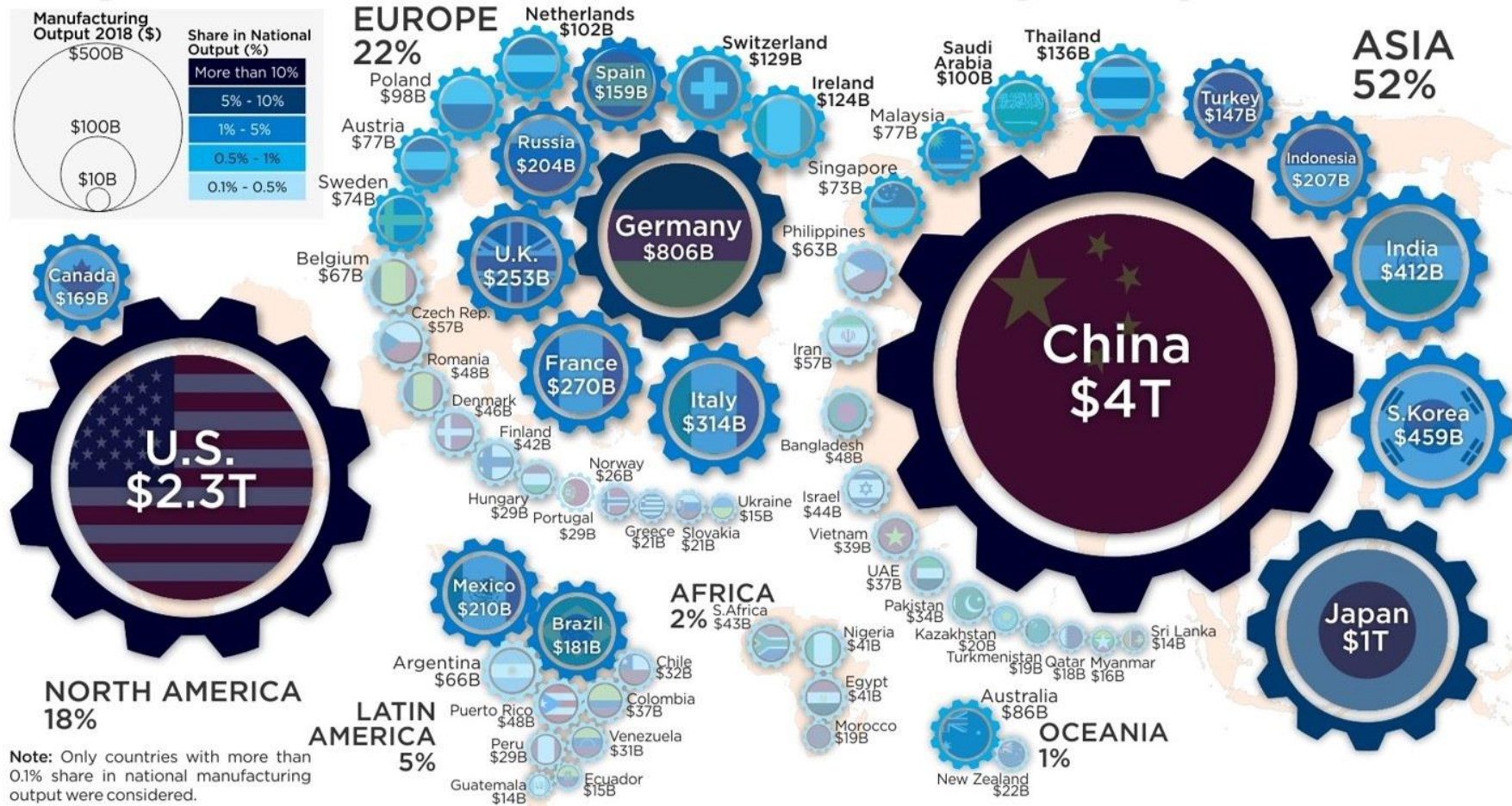
SHARE OF GDP (WORLD POWERS)



Source: World Economic Forum

1. Digital Economy and Globalization

Map of the World's Manufacturing Output in 2019

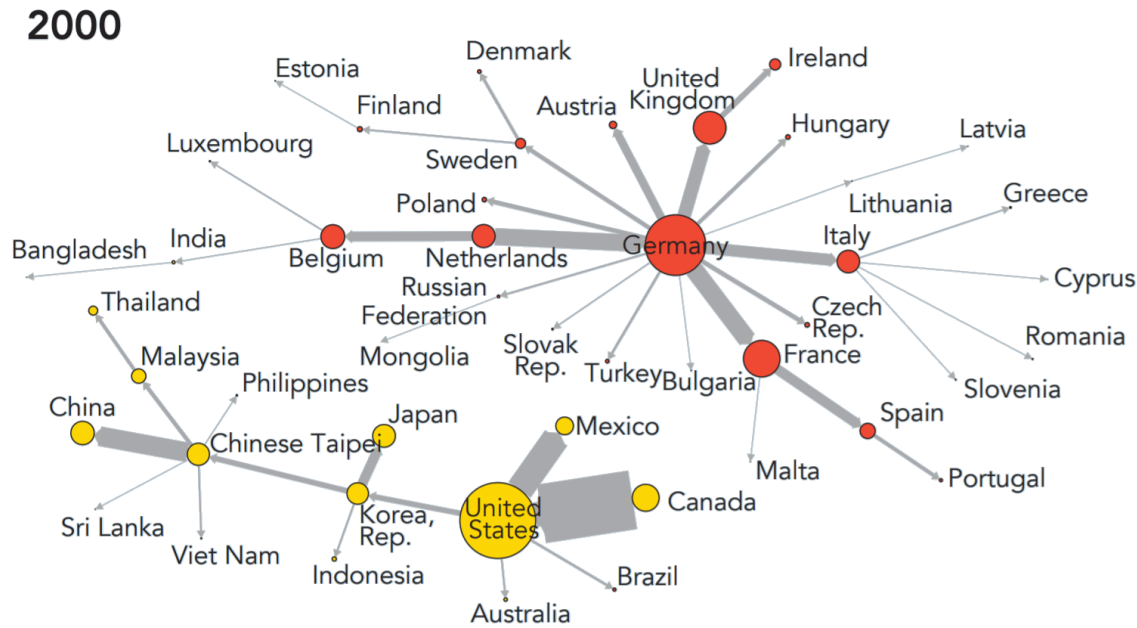


Note: Only countries with more than 0.1% share in national manufacturing output were considered.

Article & Sources:
<https://howmuch.net/articles/map-worlds-manufacturing-output>
United Nations Statistics Division - <https://unstats.un.org/>

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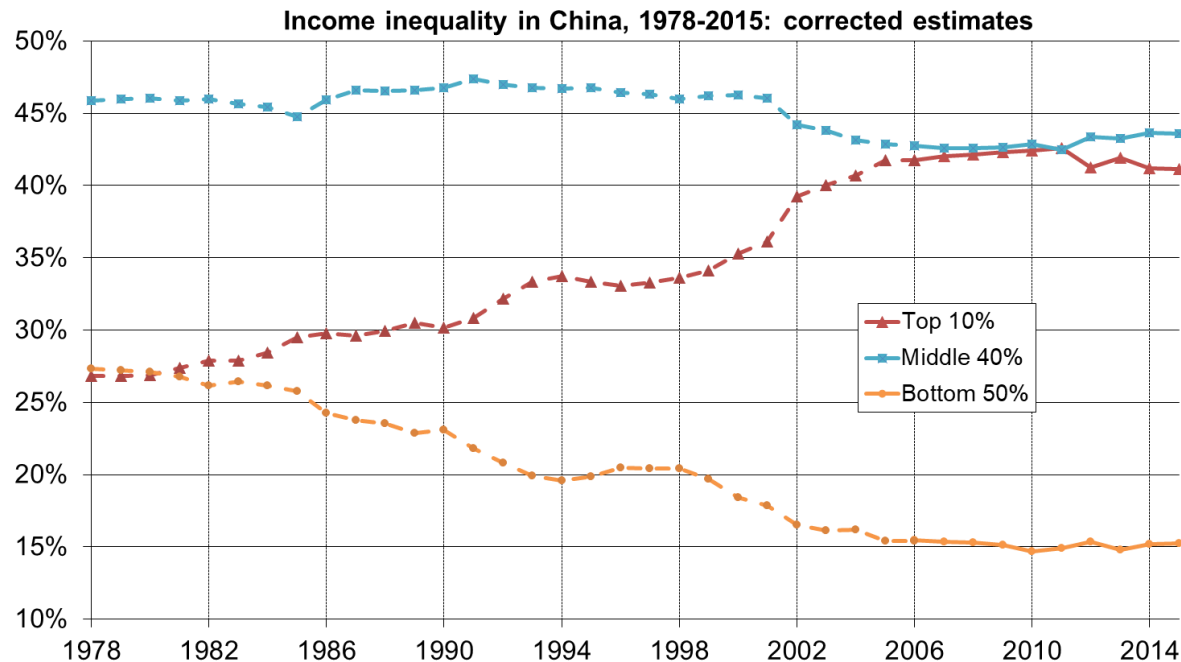
China's Role in Global Value Chain



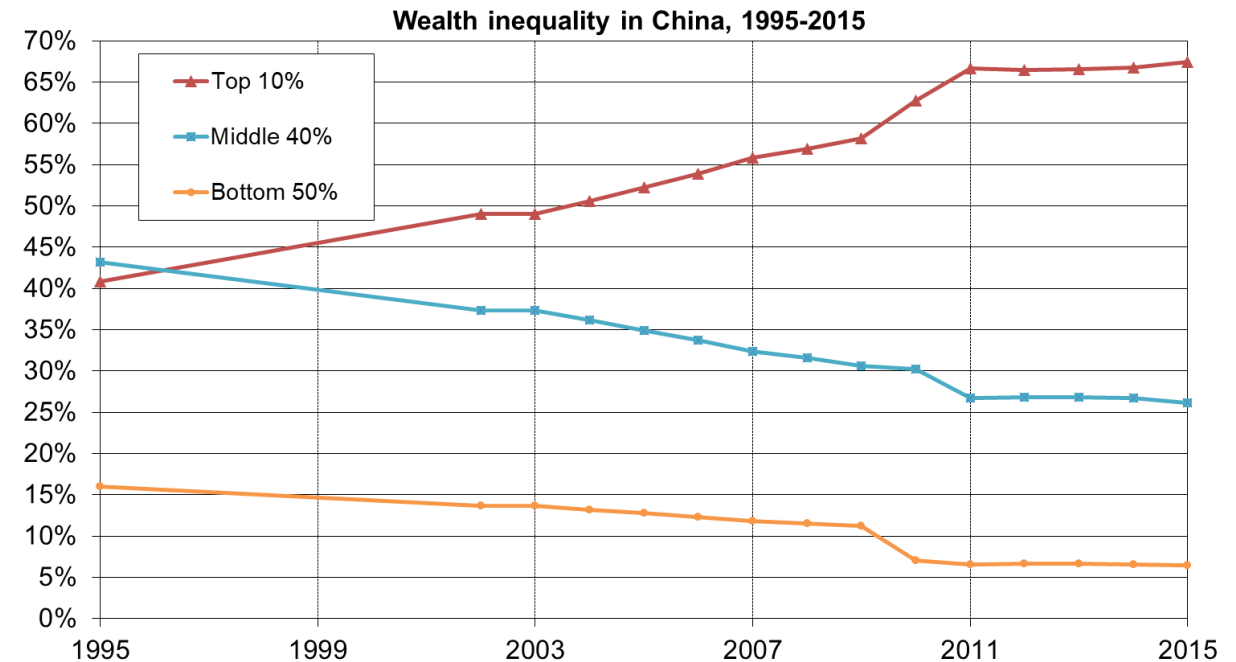
Source: Global Value Chain Development Report 2017; World Bank

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- On the other hand, increasing income and wealth inequalities in China



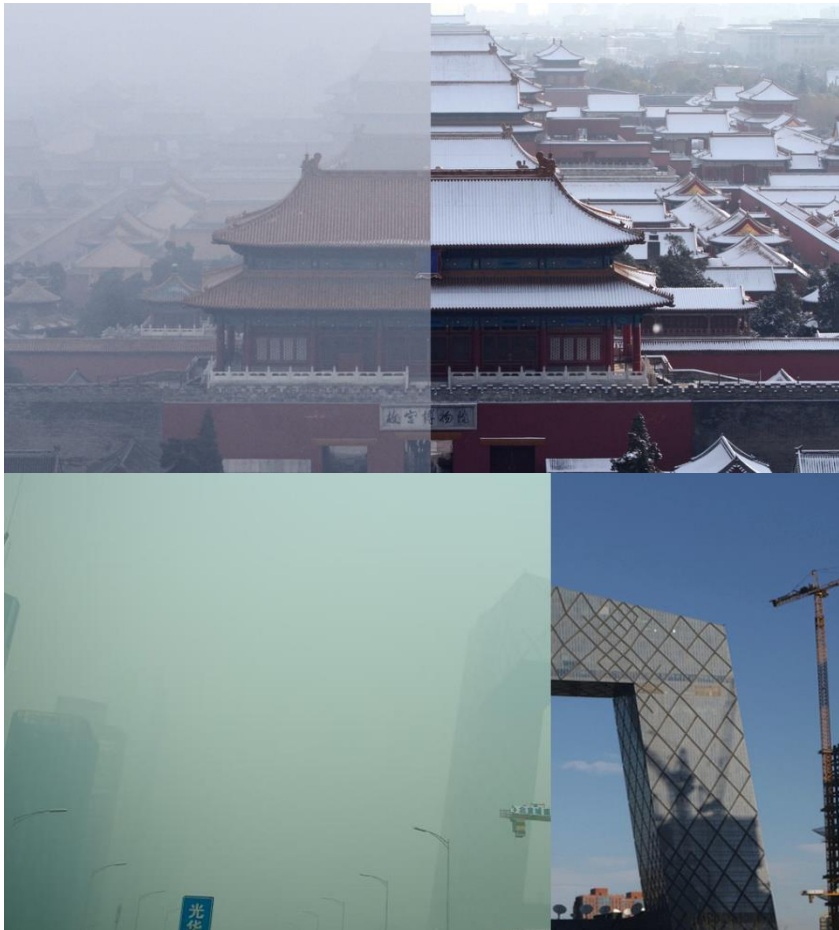
Distribution of pretax national income (before taxes and transfers, except pensions and unempl. insurance) among adults. Corrected estimates (combining survey, fiscal, wealth and national accounts data). Equal-split-adults series (income of married couples divided by two). Pre-2006 series assume that the tax/survey upgrade factor is the same as the one observed on average over the 2006-2010 period when national-level tax data exist.



Distribution of net personal wealth among adults. Corrected estimates (combining survey data and wealth rankings). Equal-split-adults series (wealth of married couples divided by two).

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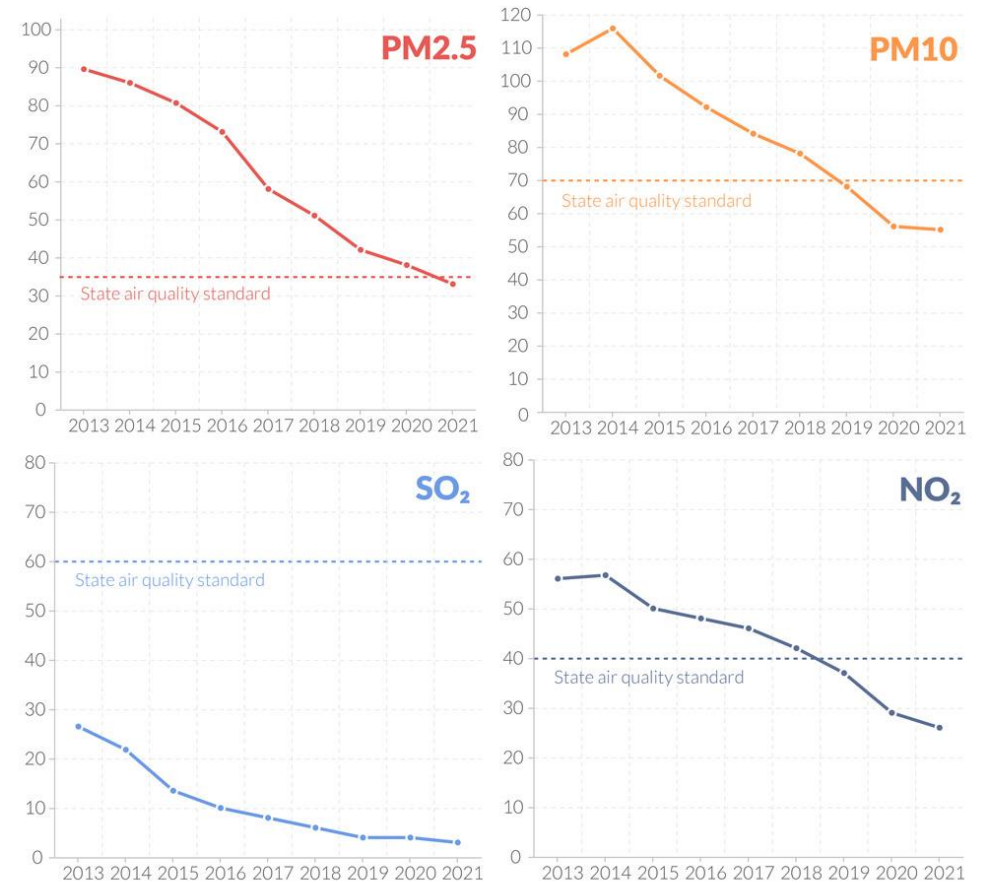
- Pollution



Beijing Breathes Clean Air in 2021

Unit: $\mu\text{g}/\text{m}^3$

The Chinese capital fully met the country's air quality standards for the first time last year.

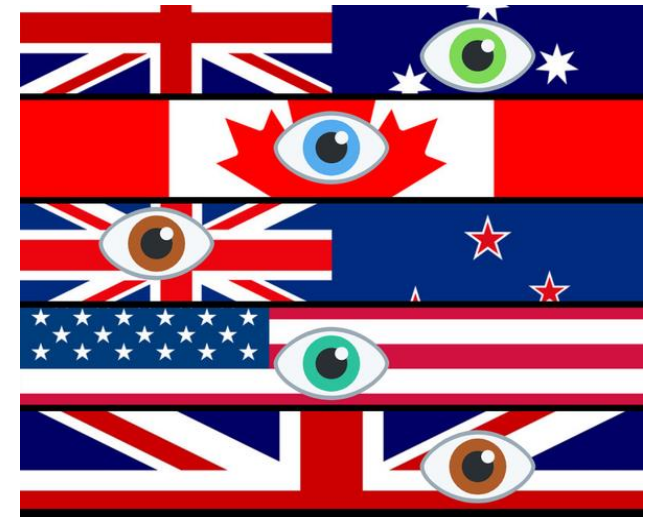
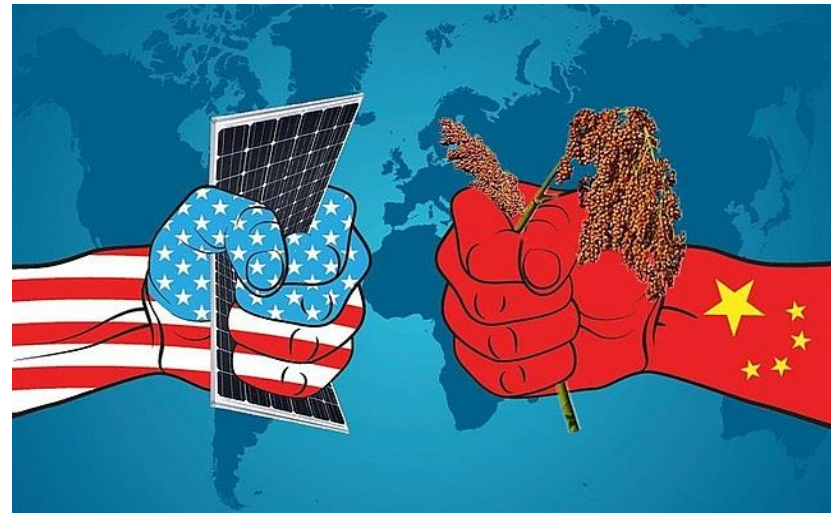
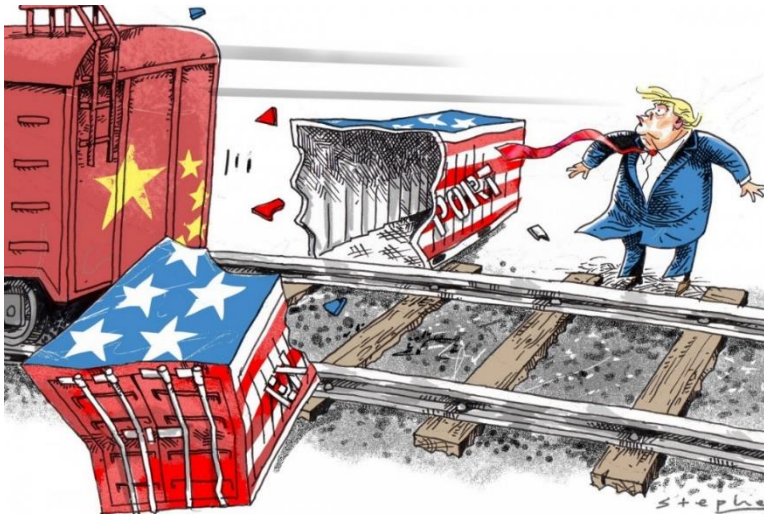


Source: Beijing Municipal Ecology and Environment Bureau.

SIXTH TONE
Luo Yahan & Wang Xinyi

1. Digital Economy and Globalization

- Increasing economic and geopolitical conflicts between China and U.S. in recent years





2

New Challenges for Talents Training

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2. New Challenges for Talents Training



Question: How to train future business talents and leaders to deal with the aforementioned challenges?

- Our future generation business talents and leaders need to understand:
 - how digital technologies drive changes in economy and society;
 - how to maintain a steady economic growth in China while improving income inequality and solving other social problems;
 - how to compete and cooperate while enhancing a harmonious international community.

2. New Challenges for Talents Training



- The main missions of Chinese business and economics education are to train future generation business talents and leaders so that they

- know how AI impacts economy, business and society;
- have an international vision, knowing how to communicate with people from different cultural backgrounds;
- know how to solve conflicts in ways which benefit all parties involved.

2. New Challenges for Talents Training



- These call for
 - reforming existing curriculums in Chinese business education, such as incorporating the elements of digital technologies into business and economics education;
 - enhancing critical thinking abilities;
 - improving communication skills;
 - having international vision.



3

Chinese Approaches: The Case of UCAS

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3. Chinese Approaches: The Case of UCAS



I. Initiative of China's New Liberal Arts Education

- In **August 2018**, Chinese government first proposed to “promote high-quality development, further enhance the capability and contribution of educational services, and develop new engineering, new medicine, new agriculture and **new liberal arts**”.

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Revitalizing undergraduate education and promoting the construction of new liberal arts

- In **April 2019**, the kick-off meeting of “six excellence and one top-notch” plan 2.0 was held in Tianjin University, launching the key action of comprehensively revitalizing undergraduate education and vigorously promoting the construction of new engineering, new medicine, new agriculture and new liberal arts.
- Liming FAN, President of Shandong University, appointed as Head of the Working Group for the Construction of New Liberal Arts by the Chinese Ministry of Education (MOE).



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Comprehensive deployment of new liberal arts construction

- The National New Liberal Arts Construction Conference was held in November 2020.
- The working group released the “**Declaration on the Construction of New Liberal Arts**”, depicting the blueprint of the construction of new liberal arts, and officially unveiling the new liberal arts educational research center.



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Construction of new liberal arts enters a new stage

- New Liberal Arts Construction Forum was held in Jinan in **April 2021**.



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II. Introduction to SEM at UCAS

- The Chinese Academy of Sciences (CAS), established in 1949, is the leading national research institution for natural sciences in China. It has over 100 research institutes located in Beijing and across the country.
- It is the birthplace of modern postgraduate education in China.



1949

→
CAS
Headquarters



2021

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- CAS is the palace of China's management science and the birthplace of China's modern management thought, dating back to 1950s.



Xuesen QIAN

Proposed the **systems science theory**, which is widely used in the discipline of management



Luogeng HUA

Promoted **operations management** and **optimization methods** among Chinese enterprises



Guozhi XU

One of the main founders of **operations research** and **systems engineering** research in China

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- SEM at UCAS was founded in 2001.



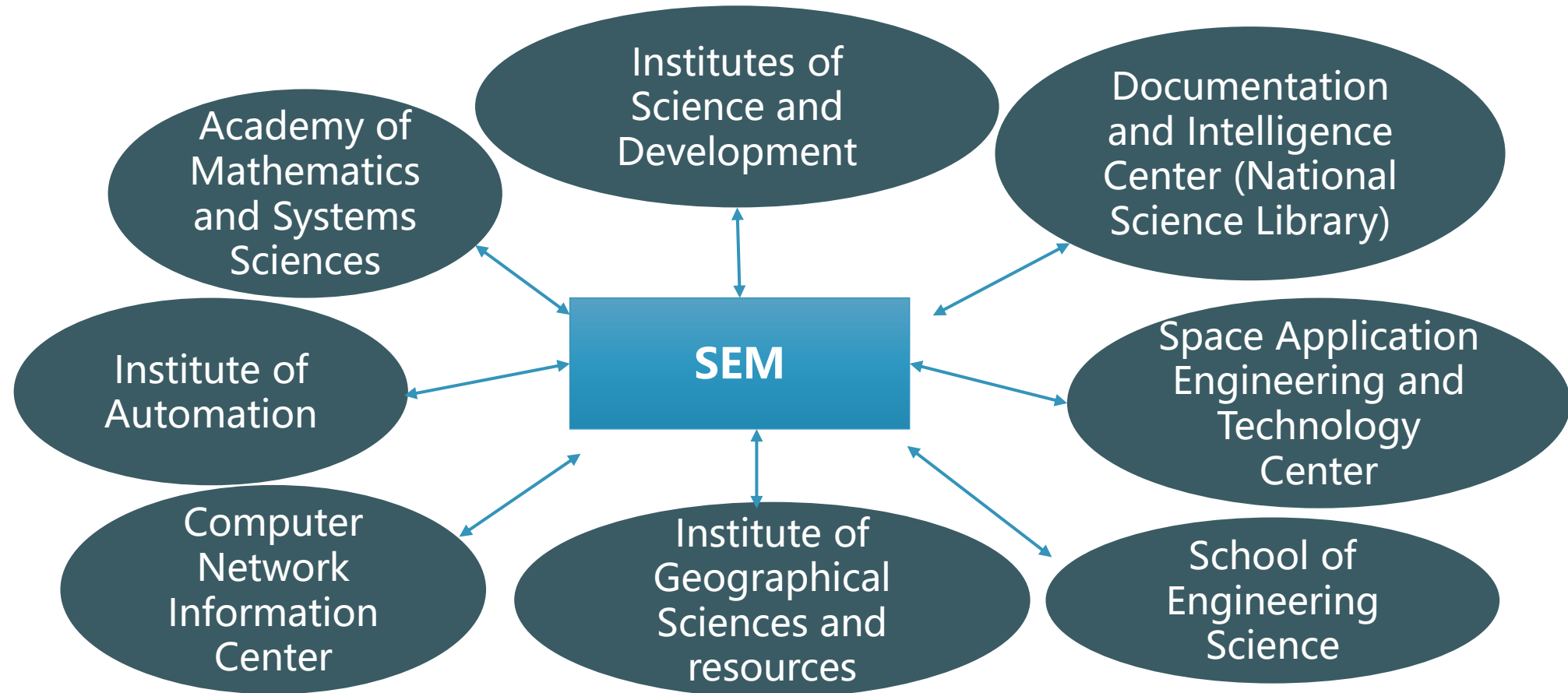
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- With a glorious history and tradition of inter-disciplinary research and education, SEM advances the **development of emerging disciplines and fields** such as **digital economics, FinTech and big data mining**, and contributes to the **integration of new technology, finance and real economy**.



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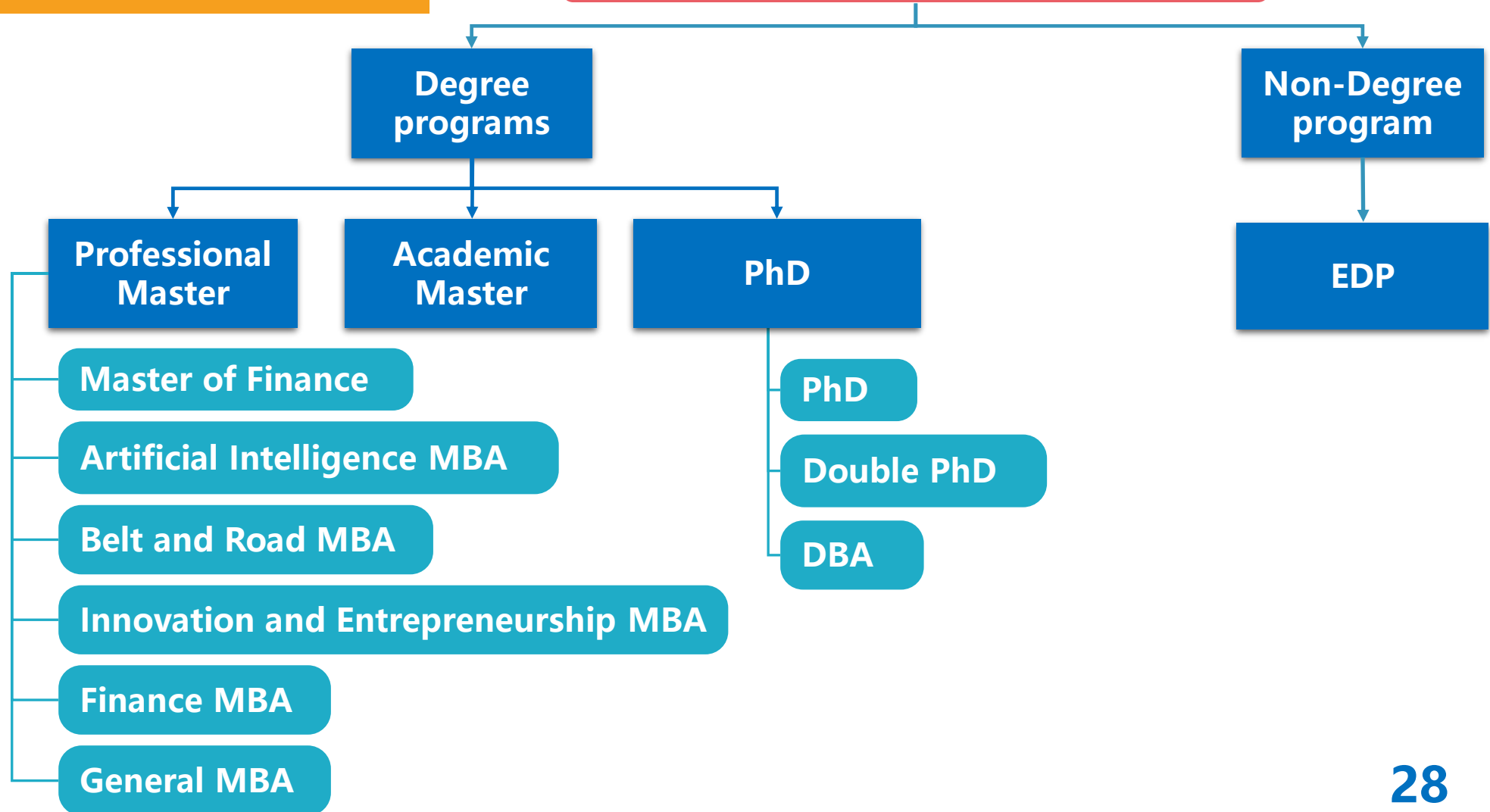
- A number of CAS institutes are closely integrated with SEM. Some faculty members in these institutes are dually appointed. They participate in teaching, thesis supervision, joint research and important activities of SEM.



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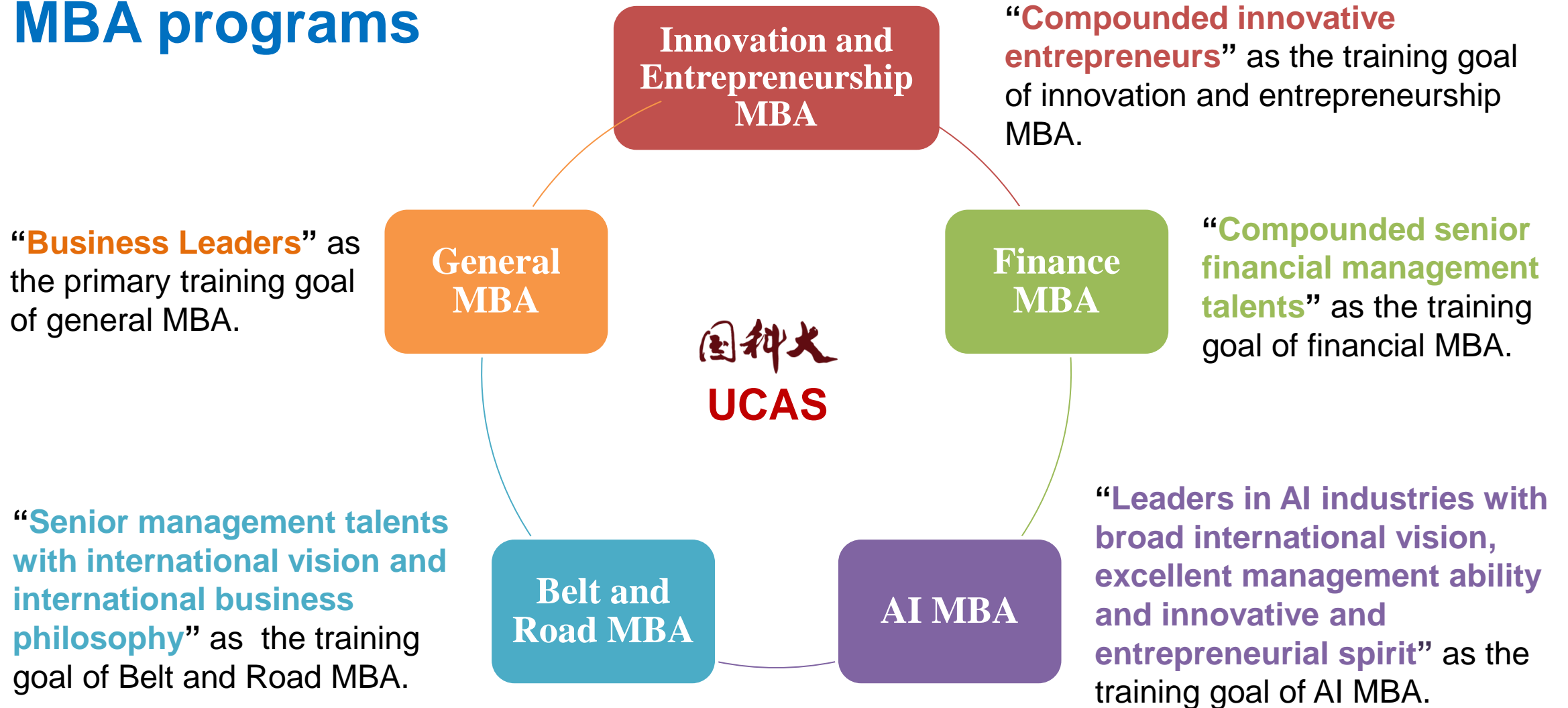
III. Talents Training at SEM

SEM Educational Programs



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MBA programs



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- SEM has taken the lead in launching the Innovation and Entrepreneurship MBA and the Artificial Intelligence MBA programs in China.
- Innovation and Entrepreneurship MBA program
 - The **Innovation and Entrepreneurship Training Camp** launched for all MBA students has been implemented for three consecutive years and is quite popular in SEM.
 - With this program, SEM contributes to building a new industry incubation base around the fields of physical information, life and health, and promoting the development of Beijing's National Comprehensive Science Center.



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- Artificial Intelligence MBA program

- Integrating the advantageous AI resources of CAS (Institute of Software, Institute of Computing Technology, Institute of Automation, CAS Research Center on Fictitious Economy and Data Science) and industrial resources.
- SEM held the 2019 Artificial Intelligence DeeCamp, and established an AI studio and the National Scientific Artificial Intelligence Industry Research Center.
- AI MBA program won the single award of "China's most promising and specialized MBA program" in 2020.



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IV. Textbooks

- SEM cooperates with China Higher Education Press to develop a series of textbooks in the fields of digital economics and digital management.

**Editor-in-
Chief**



Shouyang WANG
former Dean of SEM



Yongmiao HONG

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Textbooks of Digital Economy

- 1 Principles of Digital Economics
- 2 Digital Trade
- 3 Introduction to Quantitative Finance
- 4 Digital Economic Accounting Theory
- 5 Digital Insurance
- 6 Machine Learning and Application
- 7 Introduction to Data Science
- 8 Financial Supervision Technology
- 9 Digital Economy Policy and Politics

Textbooks of Digital Management

- 1 Digital Marketing
- 2 Introduction to Digital Operation
- 3 Smart Logistics
- 4 Business Model in the Digital Age
- 5 Strategic Management
- 6 Intelligent Financial Management
- 7 Business Data Analysis
- 8 Introduction to Intelligent Accounting
- 9 Decision Analysis: Theory and Method
- 10 Complex Data Analysis and Application
- 11 Digital Human Resource Management

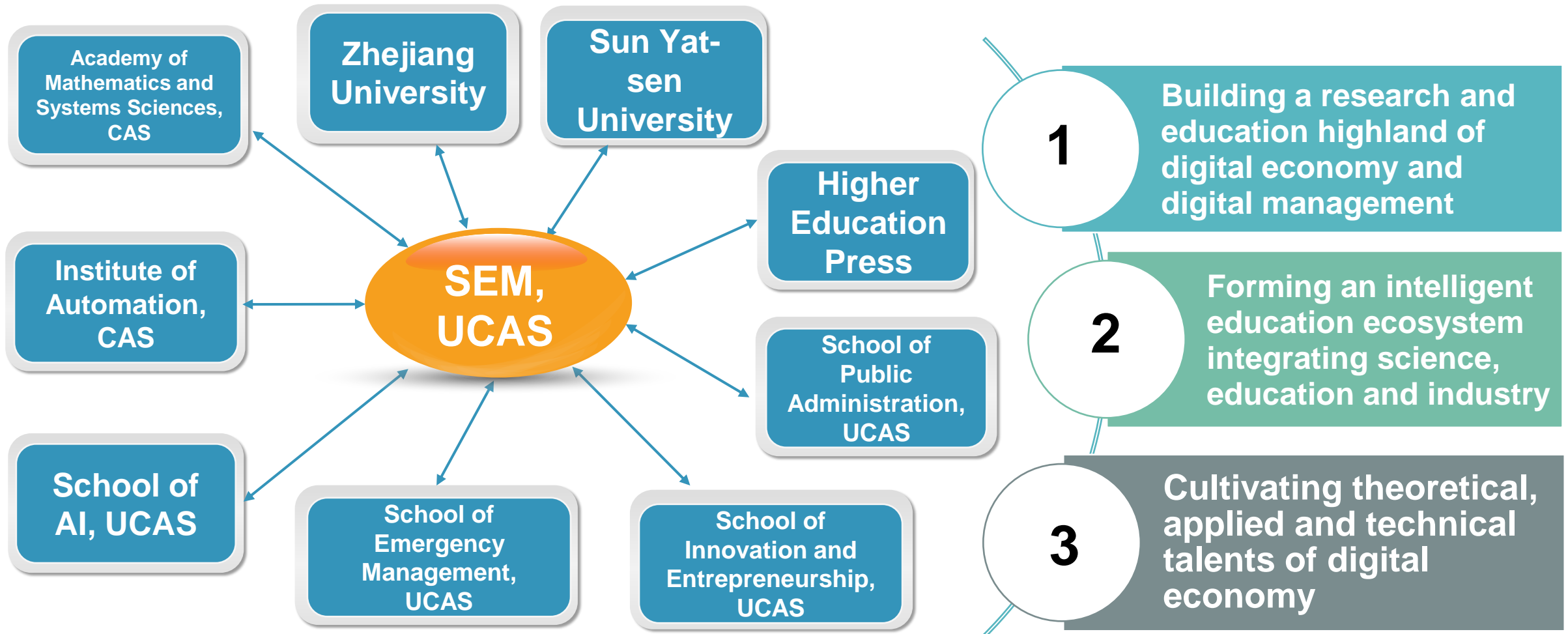
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V. MOE New Liberal Arts Research and Reform Practice Project

- On November 10, 2021, MOE announced the list of the first batch of new liberal arts research and reform practice projects, including one entitled “**digital economy and digital management new liberal arts construction practice project**”.
- This project is led by SEM, including Academy of Mathematics and System Science, Institute of Automation, School of Artificial Intelligence, Zhejiang University, and Sun Yat-sen University as partners.



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3. Chinese Approaches: The Case of UCAS



- It aims to

- build a leading research and education highland of digital economics and digital management;
- form an intelligent education ecosystem integrating science, education and industry;
- cultivate theoretical, applied and technical talents of digital economy.

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VI. MOE Philosophy and Social Sciences Laboratory (Cultivation)

- In December 2021, SEM's “**Digital Economic Monitoring, Forecasting, Early Warning, and Policy Simulation Laboratory**” was selected as the first batch of Philosophy and Social Science Laboratories (cultivation) by MOE.

教育部办公厅

教社科厅函〔2021〕22号

教育部办公厅关于公布首批教育部哲学社会科学
实验室名单的通知

MOE Philosophy and Social Science Laboratory of
Digital Economic Monitoring, Forecasting, Early
Warning, and Policy Simulation (Cultivation)



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- Goals of the lab:

- combining the development of digital technology and cutting-edge research;
- promoting the collaborative innovation of science and technology and humanities and social sciences;
- monitoring and warning the key areas of digital economy;
- offering policy recommendations to related government departments.

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VII. Internationalization of SEM

- In May 2013, SEM co-initiated the **Alliance of Chinese and European Business Schools (ACE)**.
 - European Foundation for Management Development (EFMD)
 - University of Chinese Academy of Sciences (UCAS)
 - Angers Business School (ESSCA), France



Honorary Founder
Siwei CHENG
Founding Dean of SEM



CEO & Director General
of EFMD
Eric CORNUEL

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➤ ACE Members: 20 leading business schools in Europe and China

Europe	
Rotterdam School of Management	Antwerp Management School
European Business School (EBS), Germany	Prague University of Economics and Business
School of Business, Economics and Law, University of Gothenburg	Catolica Lisbon School of Business and Economics
University of Leeds	ESSCA Business School
Polytechnic University of Milan	Faculty of Economics, Ljubljana University

Asia	
UCAS	The Hong Kong Polytechnic University
National Tsing Hua University	Beijing Jiaotong University
University of Macau	Harbin Institute of Technology
Shanghai University of Finance and Economics	Northwestern Polytechnical University
Xiamen University	Southwestern University of Finance and Economics








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- Double/Triple Degree Programs

Country	University	Program
	Groningen University	Double PhD Degree Program / Triple Degree Program
	City University of Hong Kong	Double PhD Degree
	University of Copenhagen	Double Degree Program/ Faculty and Student Exchange and Visiting Programs/ EDP program
	Durham University	Double Degree Program/ Faculty and Student Exchange and Visiting Program/ EDP program
	Nottingham Trent University	MBA+MPA Program/DBA program
	MIP Politecnico di Milano	MBA Double Degree Program/EDP Program
	Tulane University	Double Master Degree Program

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- Faculty/Student Exchange Programs

Country	University	Program
	Cornell University	Exchange Visiting Programs
	Durham University	Faculty/Student Exchange and Visiting Programs
	Kings College London	Faculty/Student Exchange and Visiting Programs
	University of Copenhagen	Faculty/Student Exchange and Visiting Programs
	Aalborg University	Faculty/Student Exchange and Visiting Programs
	Griffith University	Faculty/Student Exchange and Visiting Programs
	Tokyo University of Science	Faculty Exchange and Visiting Programs
	National University of Singapore	Faculty/Student Exchange and Visiting Programs
	Cheng Kung University/Taiwan University/Taiwan Normal University	Faculty/Student Exchange and Visiting Programs

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• Sino-Danish Center (SDC)

- SDC is a partnership between all eight Danish universities, CAS and UCAS since 2012.
- SDC's activities include Danish-Chinese research collaboration within six selected focus areas, eight affiliated Master's programs with an annual intake of approximately 150 master's students and training of a large number of PhD students.

Chemical and
Biochemical
Engineering



Innovation
Management



Nanoscience and
Technology



International Food
Quality and Health



Neuroscience and
Neuroimaging



Public Management
and Social
Development



Water and
Environment



Life Science
Engineering and
Informatics



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- Sino-Danish Center (SDC)

Danish Prime Minister Helle Thorning-Schmidt attending SDC opening ceremony in Sep. 2012



SDC Master's programmes



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2015
Initial
Accreditation

2020
renewed
accreditation



Next step



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**Thank you for your attention,
and welcome to visit SEM at UCAS!**