



China in African mining – present situation and future trends

Cooperation on Sustainable Raw Materials for China and Europe
STRADE-seminar Beijing September 27 2017

Magnus Ericsson/孟瑞松
Luleå University of Technology

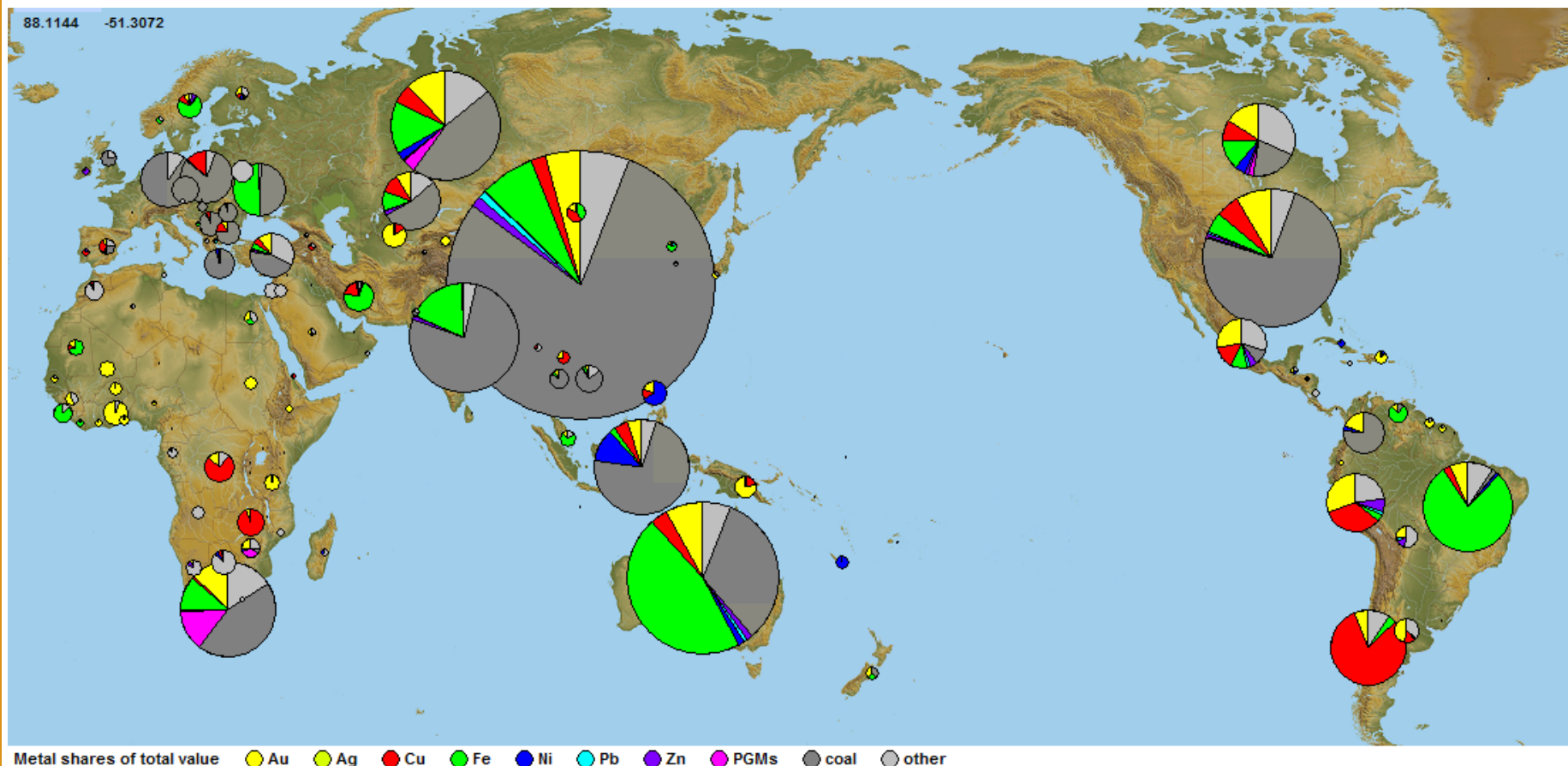
Olof Löf
RMG Consulting



AGENDA

- **Global background**
- **Chinese mining investments globally**
- **Chinese mining investments in Africa**
- **Chinese companies abroad**
- **Conclusions**

MINING IN THE WORLD

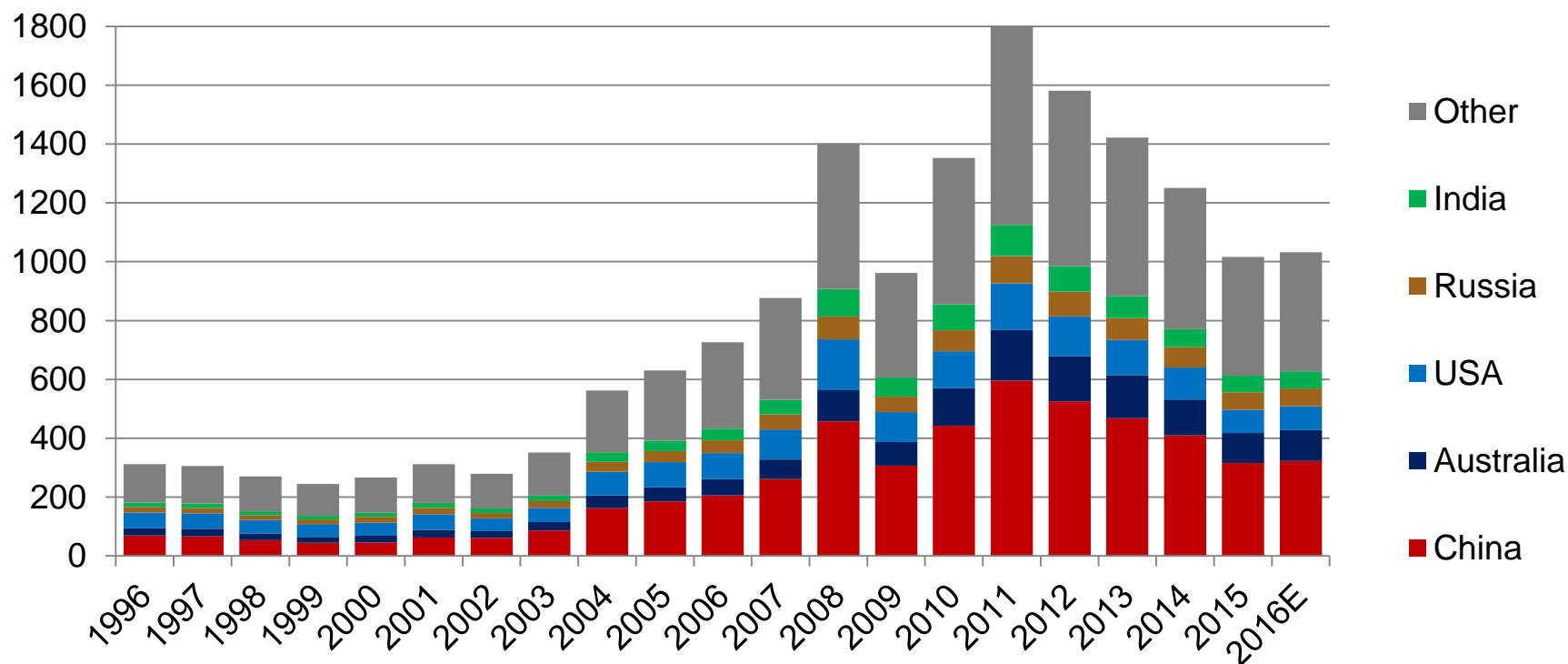


Source: Raw Materials Data



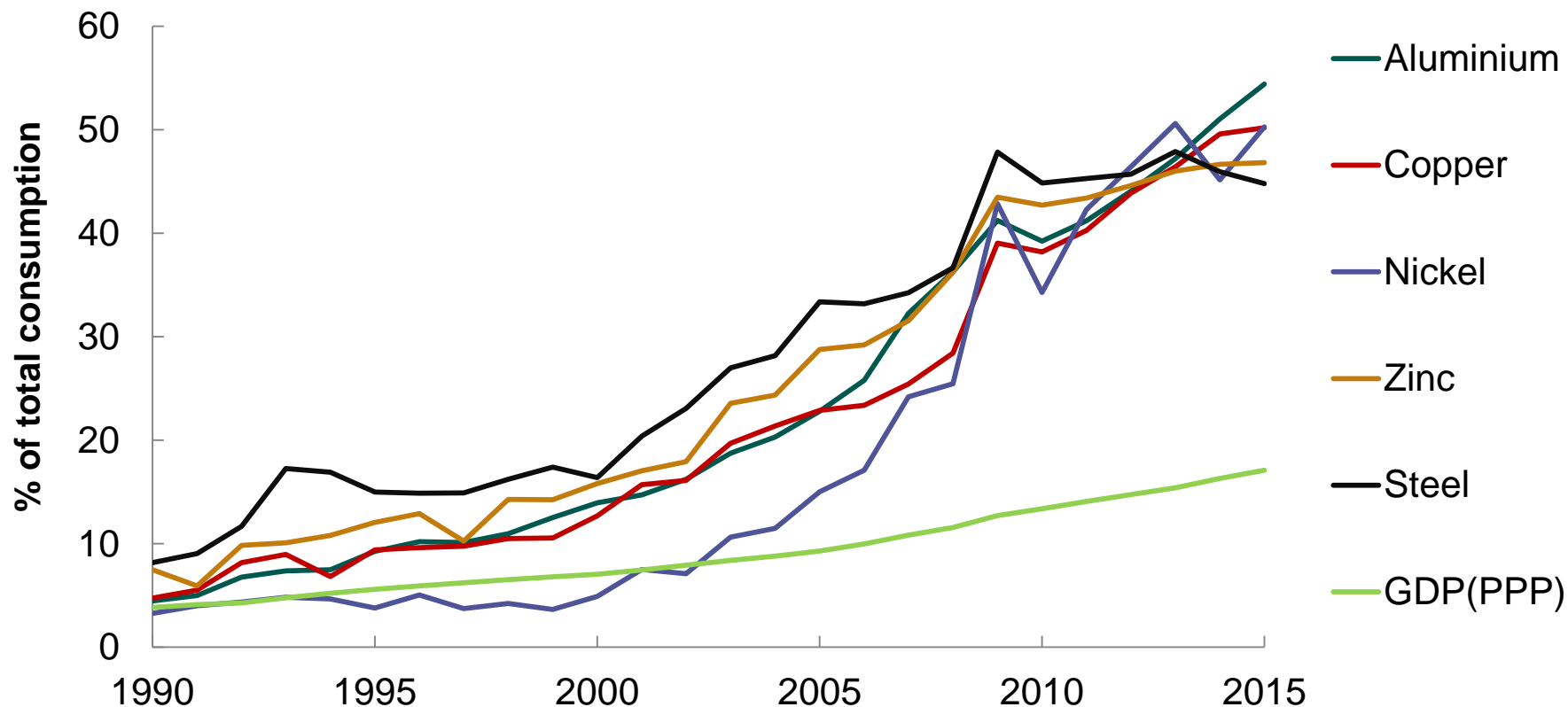
GLOBAL PRODUCTION VALUE

Billion USD





CHINA REMAINS CENTRAL



Source: DAIECON, IMF, WBMS.,



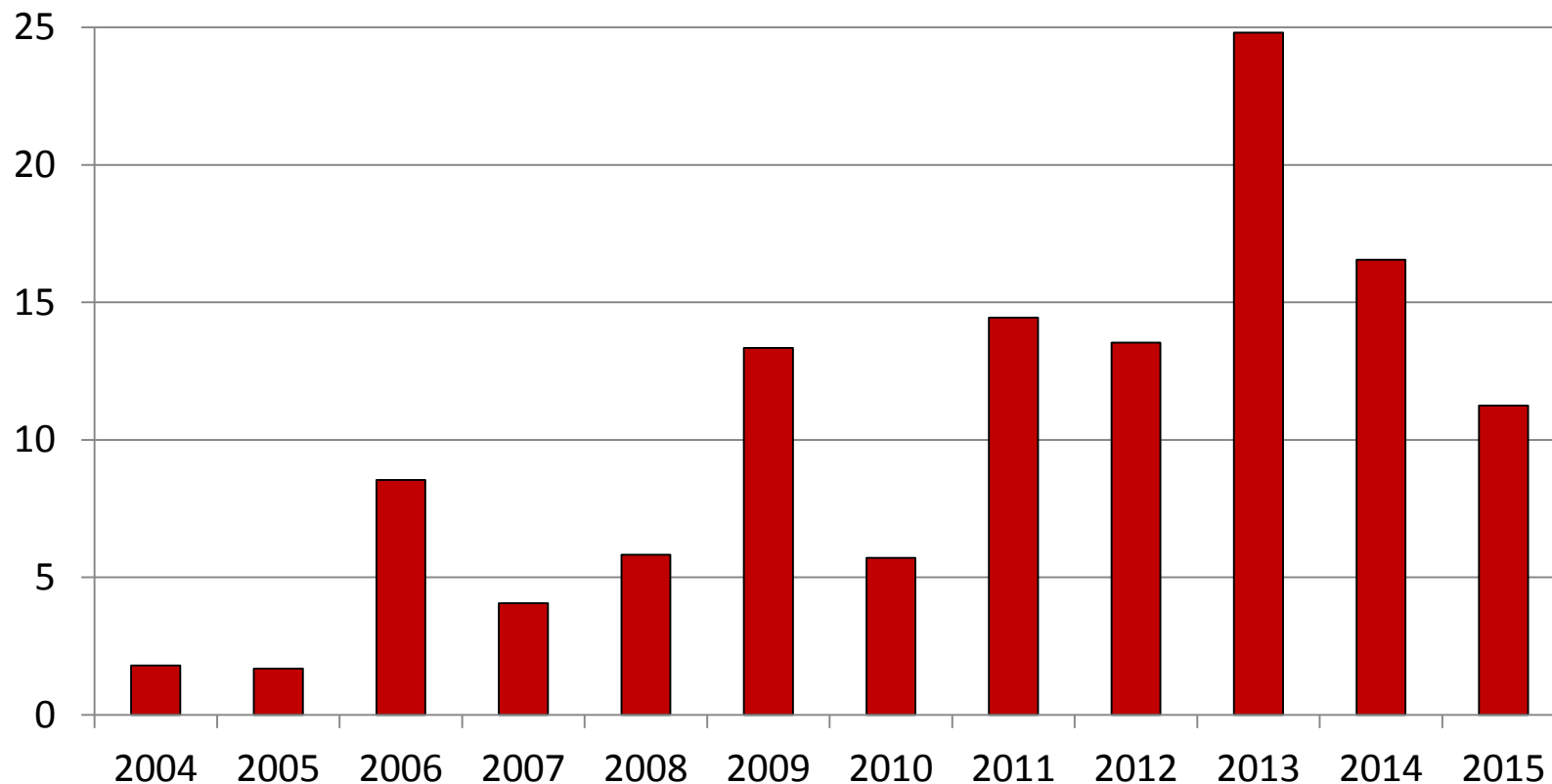
AGENDA

- Global background
- **Chinese mining investments globally**
- Chinese mining investments in Africa
- Chinese companies abroad
- Conclusions



CHINESE OVERSEAS MINING INVESTMENTS

Billion USD



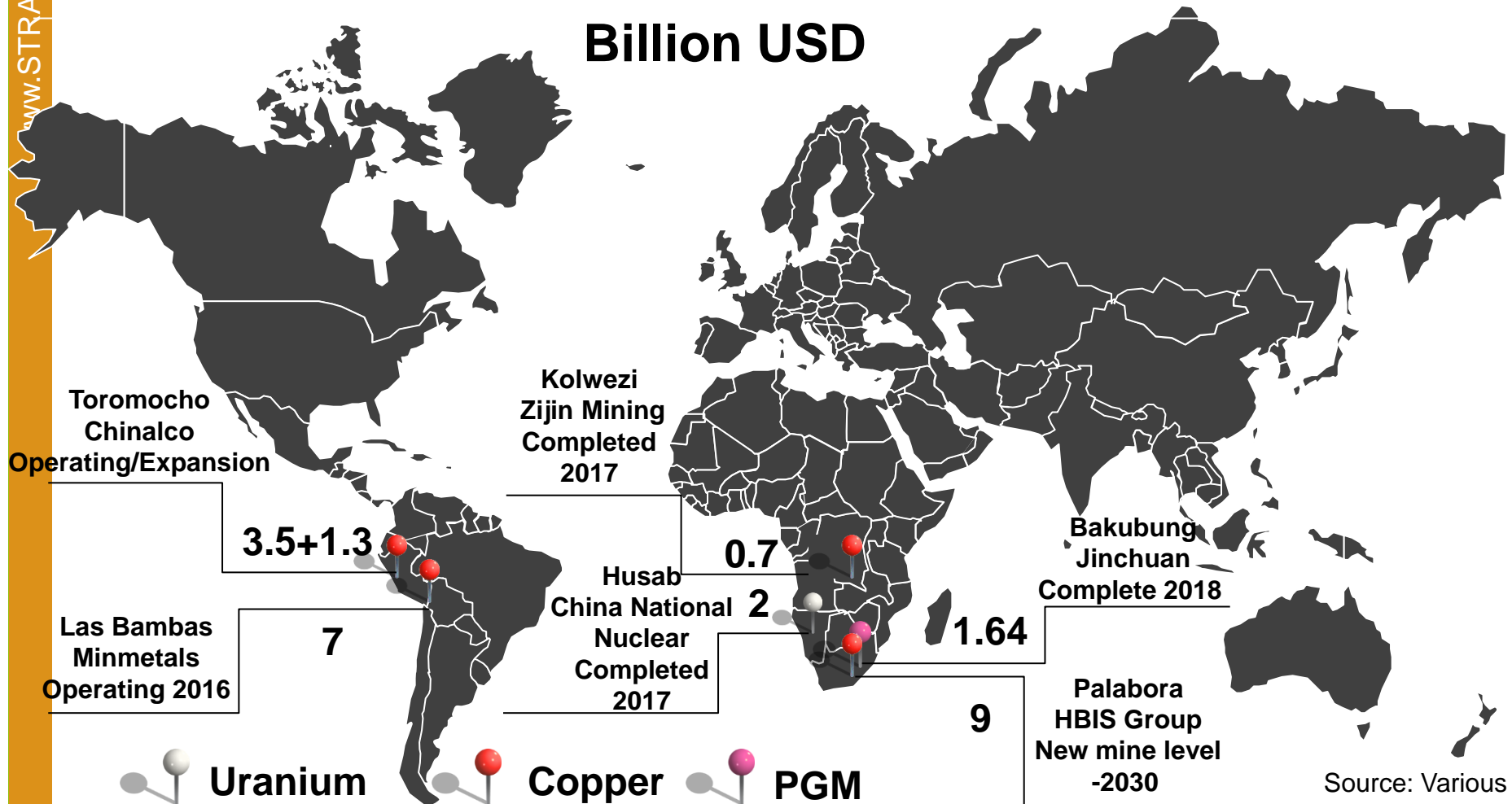
Source: NBS



MAJOR CHINESE OVERSEAS MINING M&A

Acquirer	Target	Country	Comm	Seller	Price	Status
Tianqi Lithium	Greenbushes (51%)	Australia	Lithium	Talison	\$0.5 bn	Completed May 2014
Minmetals-led consortium	Las Bambas (100%)	Peru	Copper	Glencore	\$7.0 bn	Completed Aug 2014
Shangdong Iron & Steel	Tonkolili (100%)	Sierra Leone	Iron ore	African Minerals	\$170 M	Completed Apr 2015
Guangdong Rising	2 mines and projects	Laos, PNG	Gold	PanAus	\$0.9 bn	Completed Jun 2015
Zijin Mining	Barrick Porgera (50%)	PNG	Gold	Barrick Gold	\$0.3 bn	Completed Aug 2015
Zijin Mining	Kamoa project (40%)	DR Congo	Copper	Ivanhoe	\$0.4 bn	Completed Dec 2015
Chinese investors	Bystrinsky project (13%)	Russia	Copper	Norilsk Nickel	\$100 M	Dec 2015
Chinalco	Simandou (50%)	Guinea	Iron ore	Rio Tinto	\$1.3 bn	Agreed Oct 2016
China Molybdenum	Nióbio, Fosfatos Brasil (100%)	Brazil	Nb, K2O	Anglo American	\$1.5 bn	Completed Oct 2016
China Molybdenum	Tenke-Fungurume (80%)	DR Congo	Copper, cobalt	Freeport	\$3.8 bn	Completed Jan 2017
Yancoal	Coal & Allied (100%)	Australia	Coal	Rio Tinto	\$2.45 bn	Agreed Jan 2017
Shandong Gold	Veladero (50%)	Argentina	Gold	Barrick	\$0.96 bn	Agreed Apr 2017
Fosun, Hainan Mining	Polyus gold (10%)	Russia	Gold	Polyus	\$0.89 bn	Agreed May 2017

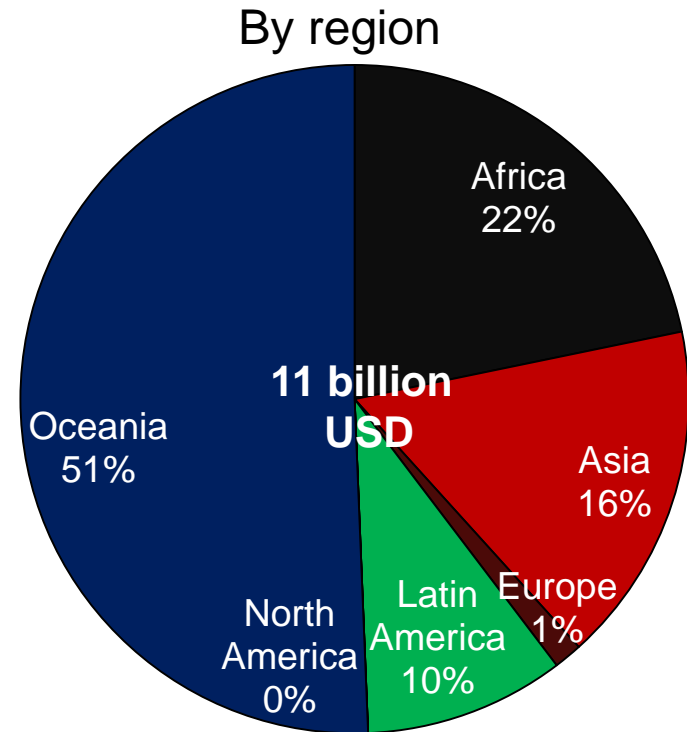
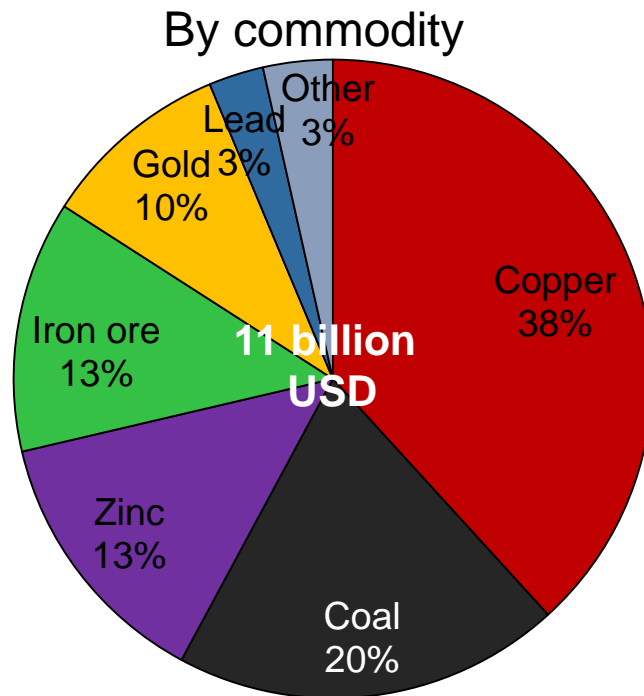
SELECTED MAJOR CHINESE MINE DEVELOPMENTS



CHINESE CONTROL OF OVERSEAS MINING

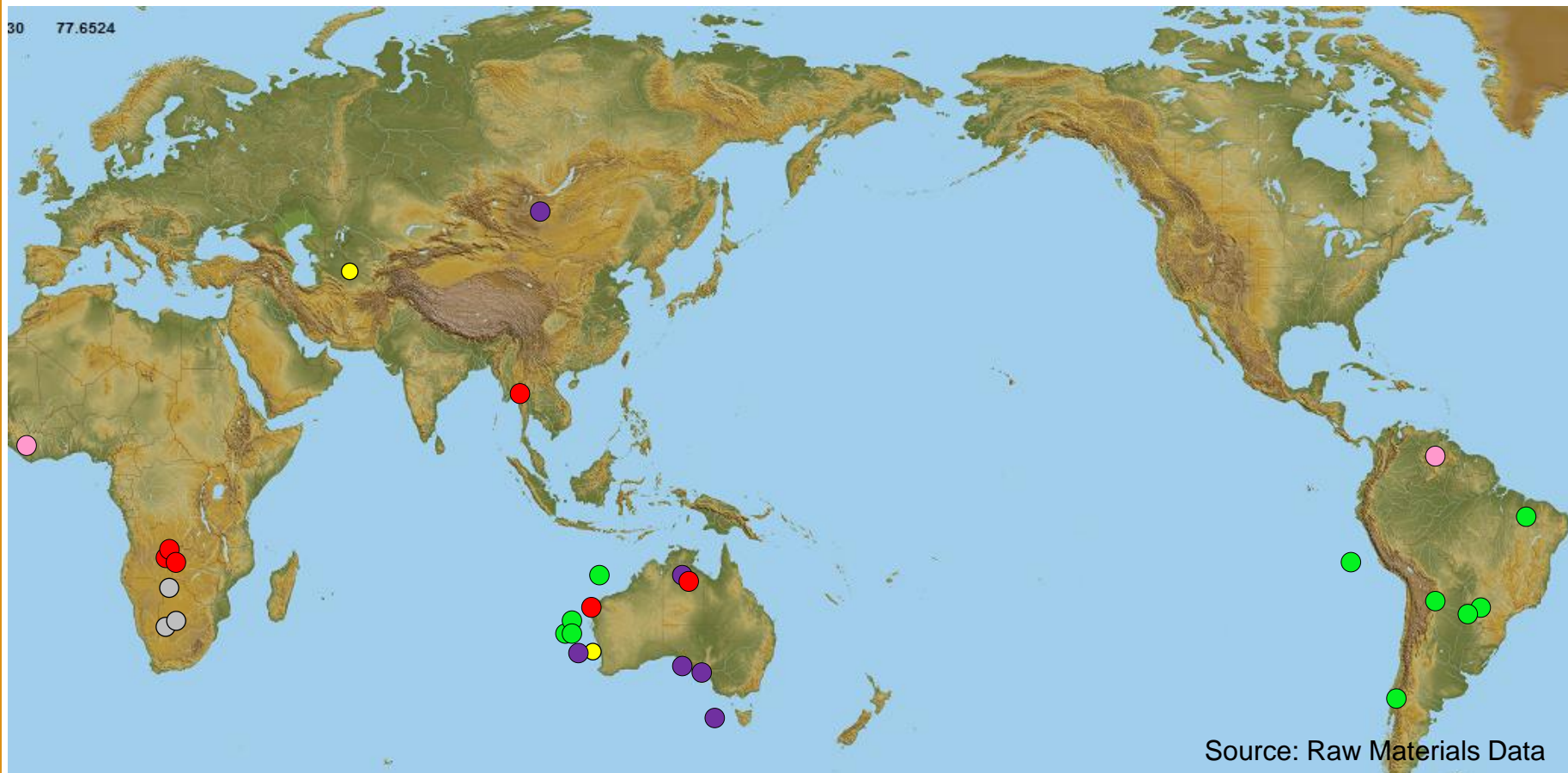
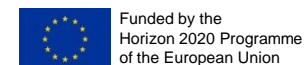
Chinese mining companies (excl ASM) control mineral output outside China to a value of 11 billion USD 2014.

Copper is the dominant metal and Oceania main region.



Source: Raw Materials Data

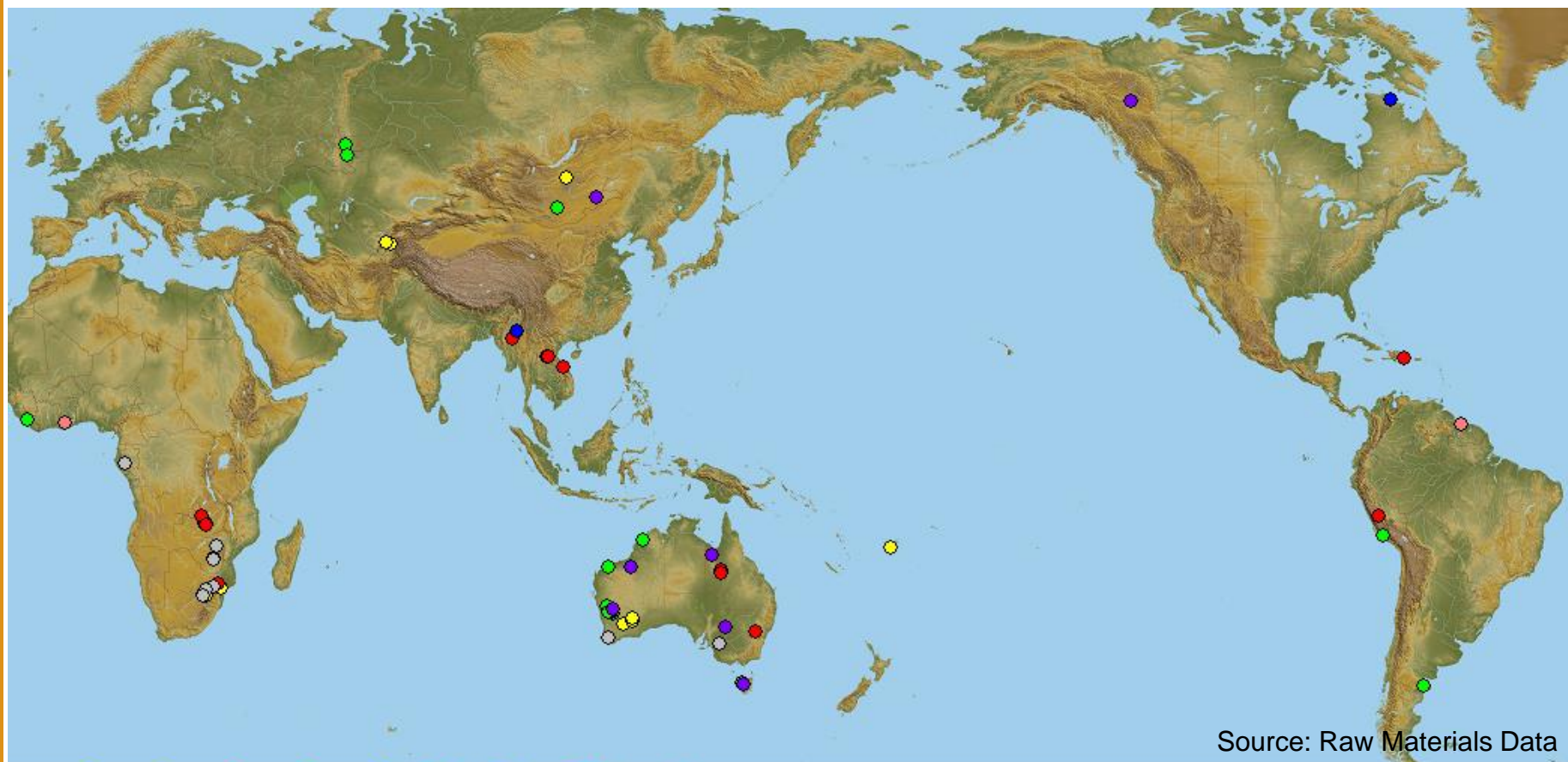
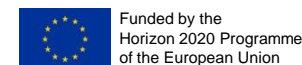
CHINESE CONTROL OPERATING MINES 2011



Source: Raw Materials Data

● Au
 ● Ag
 ● Cu
 ● Fe
 ● Ni
 ● Pb
 ● Zn
 ● PGMs
 ● Al
 ○ diamonds
 ● other

CHINESE CONTROL OPERATING MINES 2014



Source: Raw Materials Data

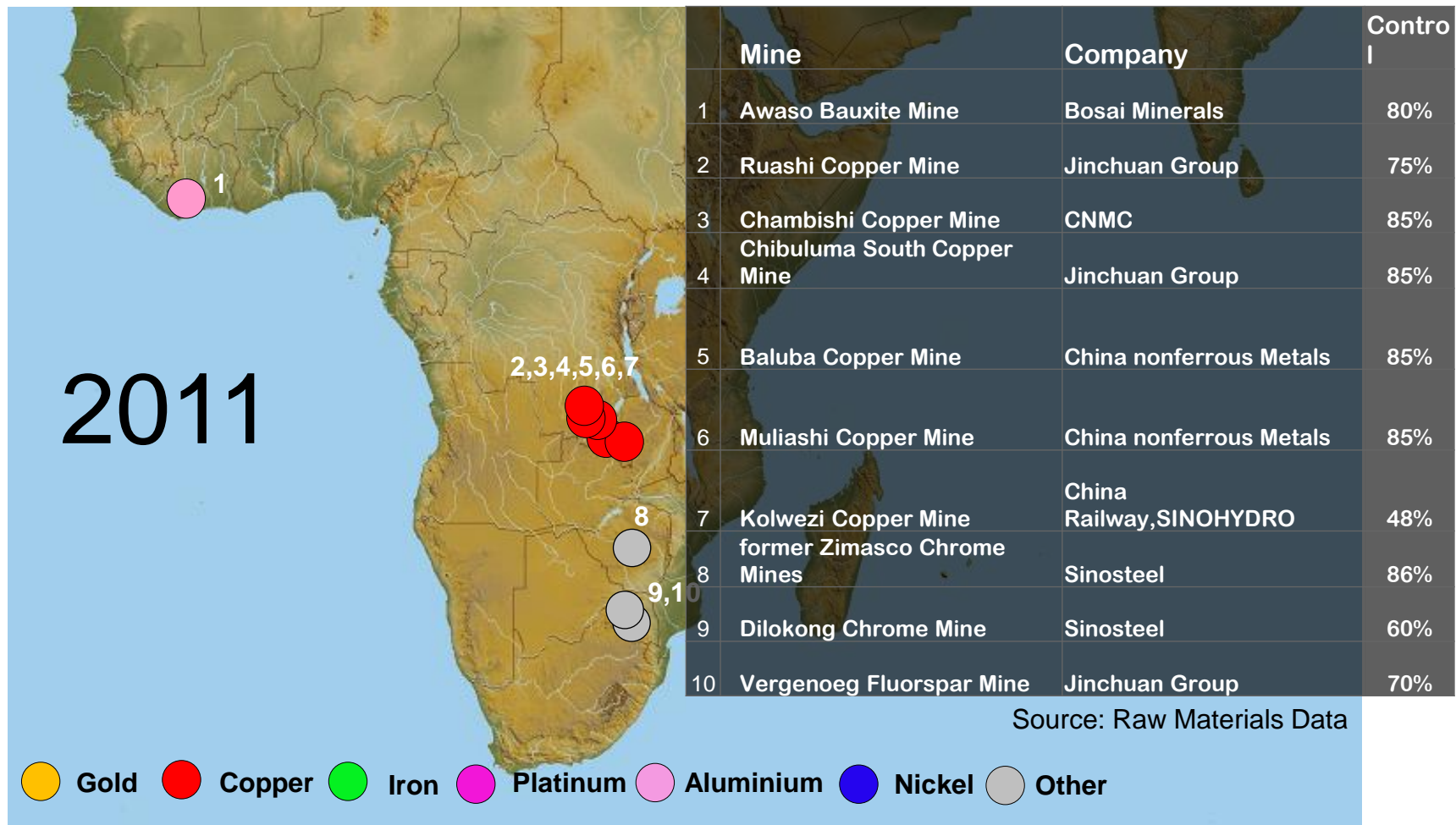
● Au
 ● Ag
 ● Cu
 ● Fe
 ● Ni
 ● Pb
 ● Zn
 ● PGMs
 ● Al
 ○ diamonds
 ● other



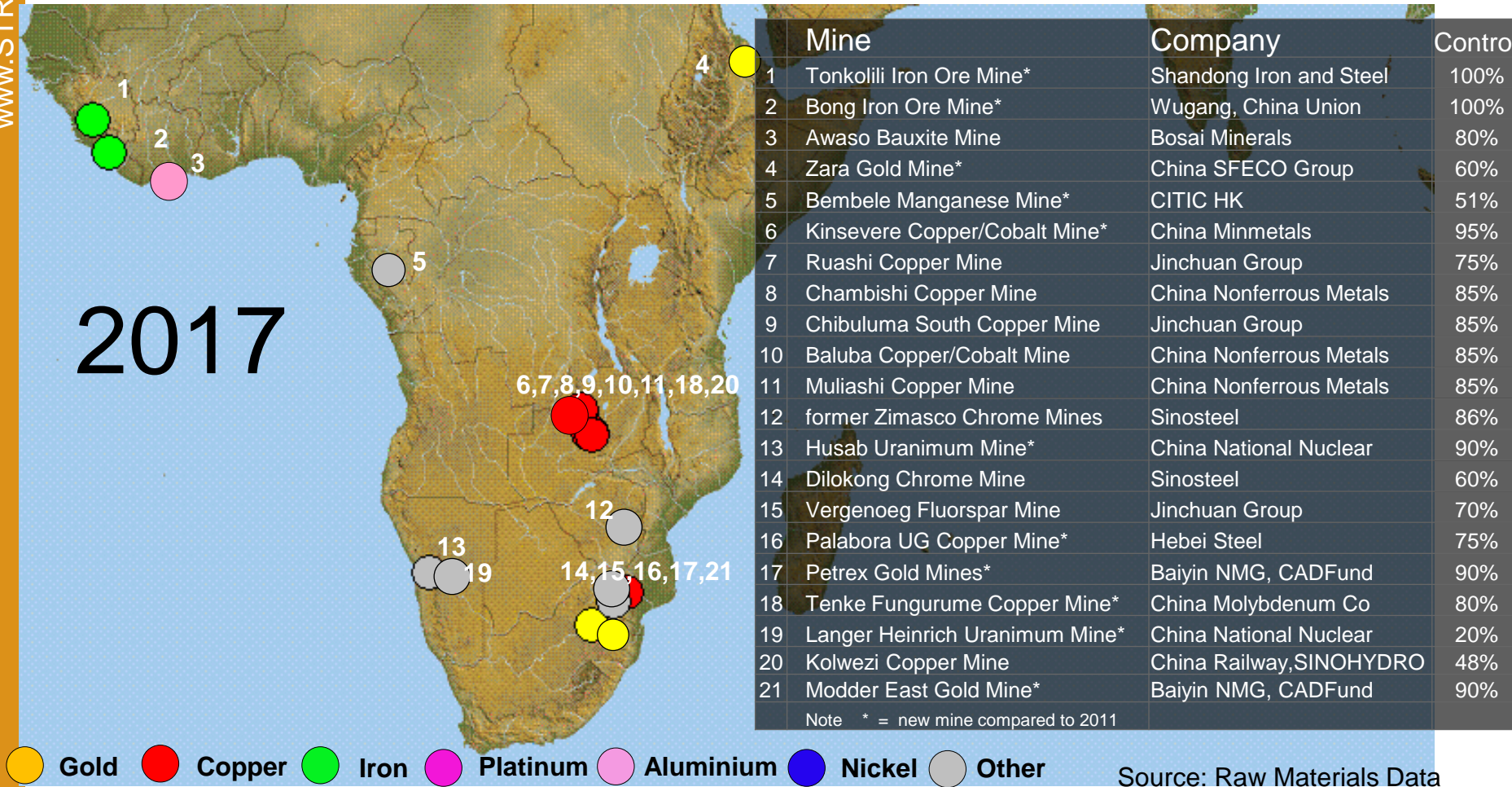
AGENDA

- Global background
- Chinese mining investments globally
- **Chinese mining investments in Africa**
- Chinese companies abroad
- Conclusions

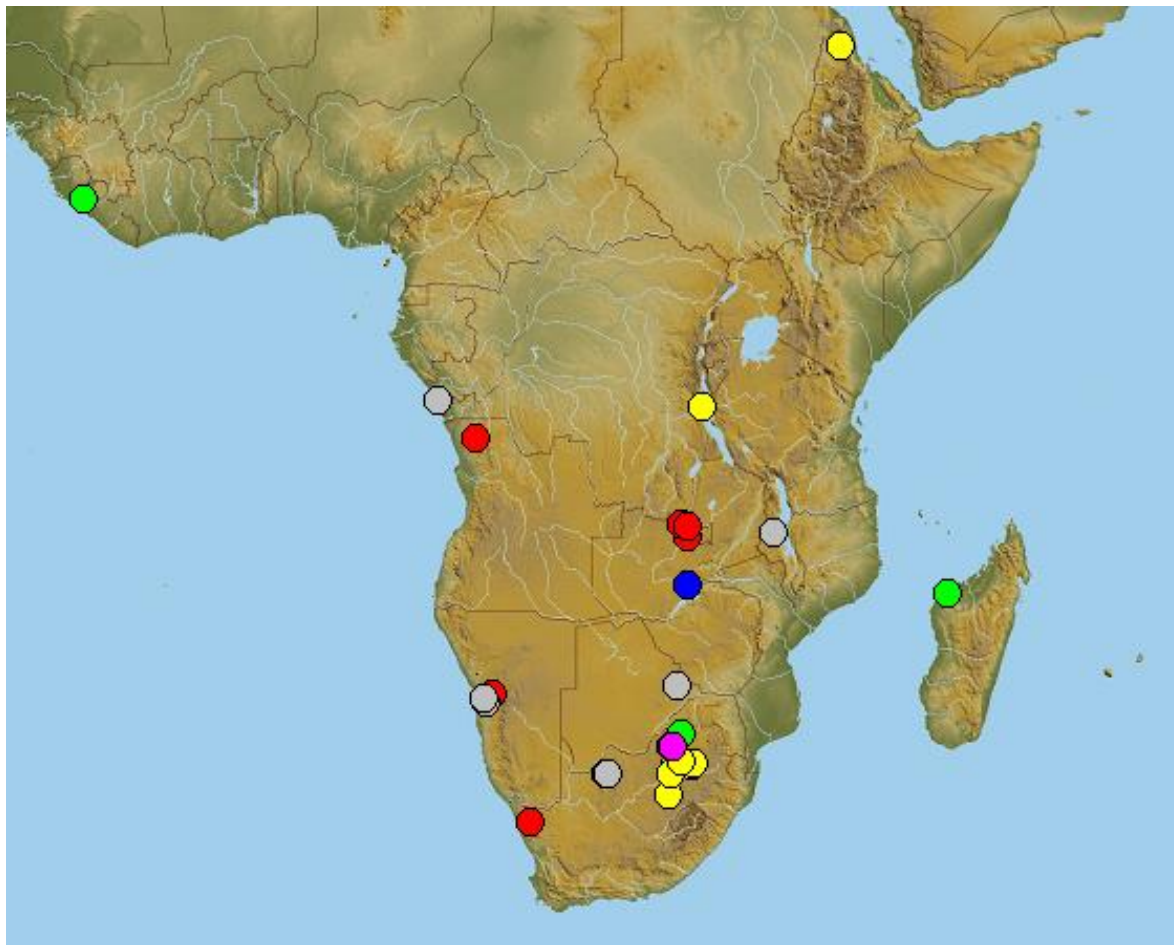
CHINESE CONTROL OF AFRICAN MINE PRODUCTION 2011



CHINESE CONTROL OF AFRICAN MINE PRODUCTION 2014



CHINESE CONTROL AFRICAN MINE PROJECTS 2014

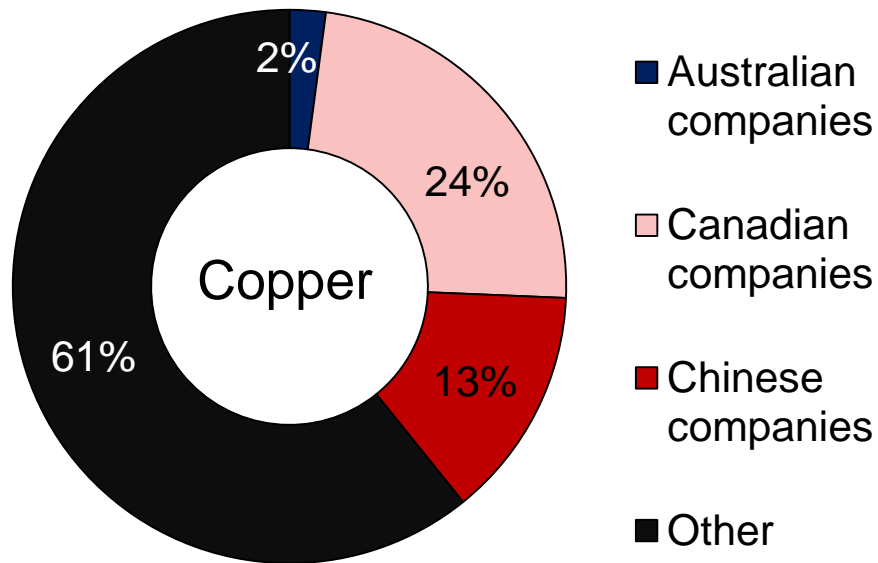


● Gold
 ● Copper
 ● Iron
 ● Platinum
 ● Aluminium
 ● Nickel

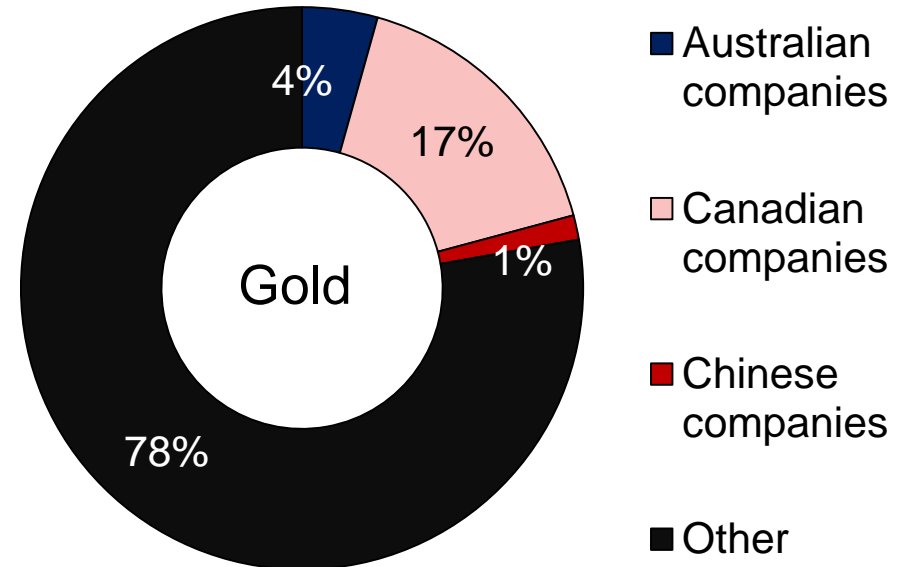
Source: Raw Materials Data

CHINESE CONTROL IN AFRICA IN PERSPECTIVE

Copper production in Africa
2014, total 2069 kt



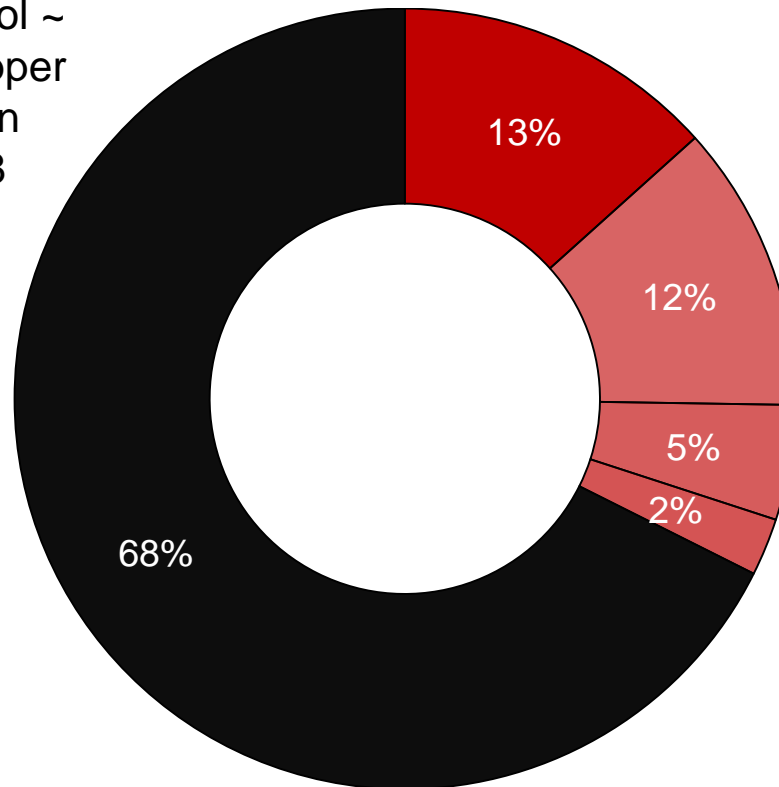
Gold production in Africa
2014, total 610 ton



Source: Raw Materials Data

CHINESE CONTROL OF FUTURE AFRICAN COPPER MINING

China to control ~
30-35% of copper
production in
Africa 2018

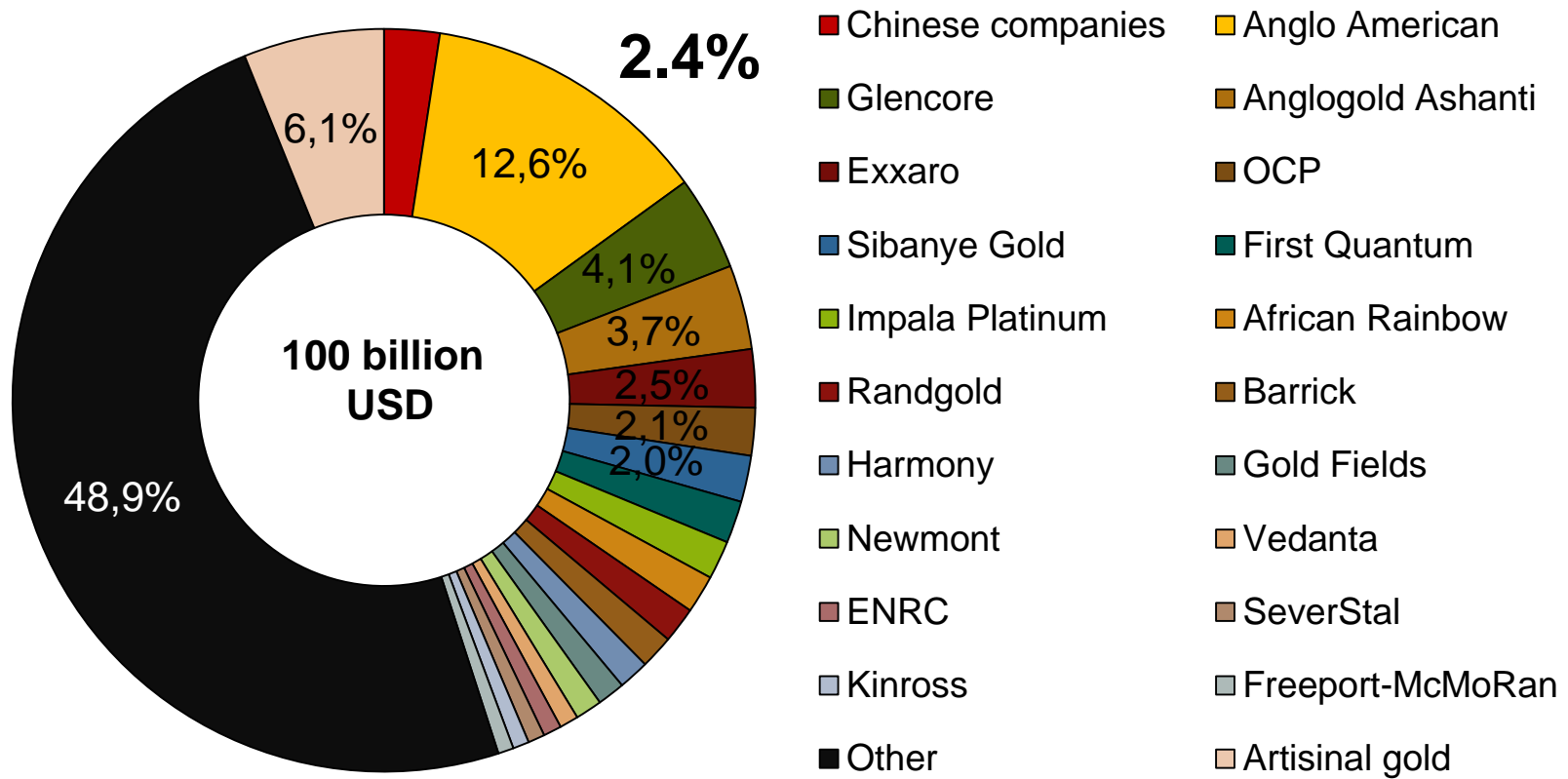


- China 2014
- Tenke Fungurume
- Kolwezi
- Kamoia
- Other

Source: Raw Materials Data

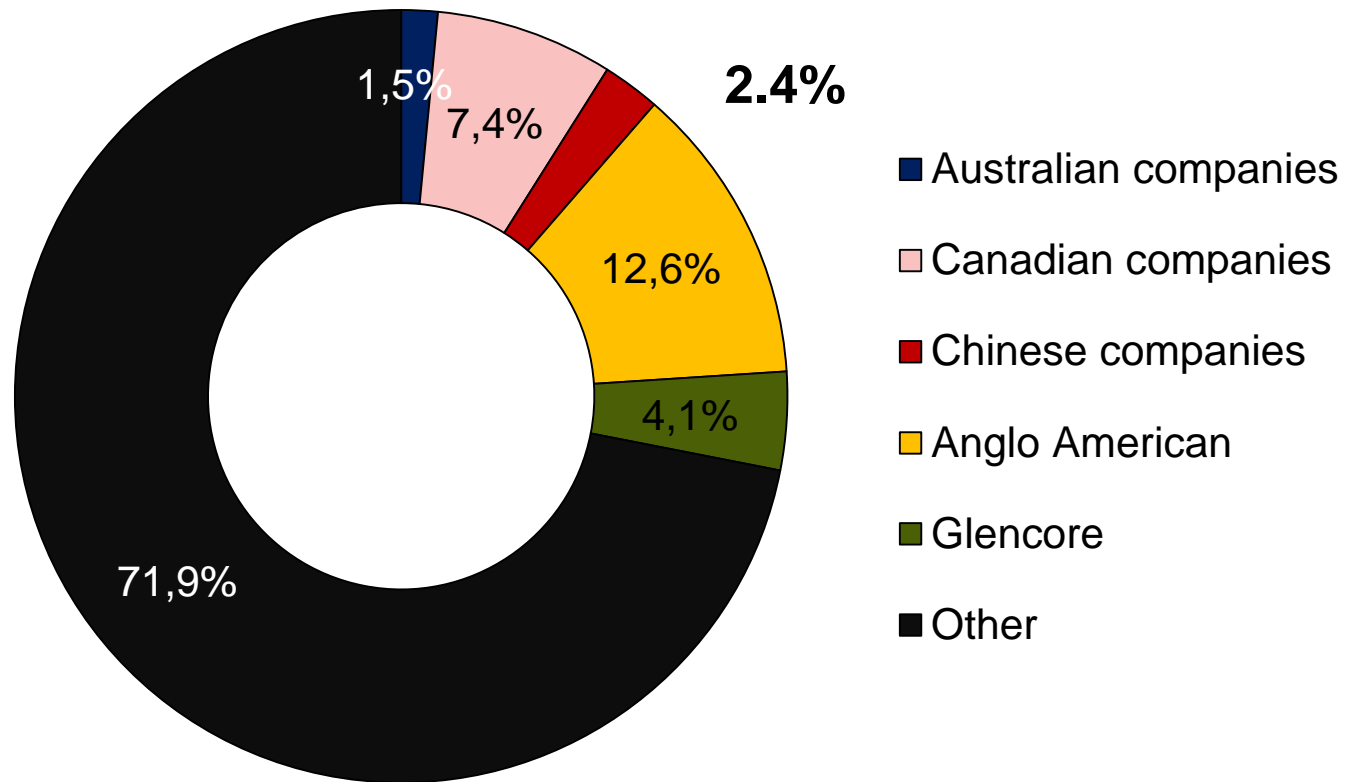
CHINESE CONTROL OF AFRICAN MINING 1

Control of African mining 2014,
total value 100 billion USD



Source: Raw Materials Data

CHINESE CONTROL OF AFRICAN MINING 2



Source: Raw Materials Data



AGENDA

- Global background
- Chinese mining investments globally
- Chinese mining investments in Africa
- **Chinese companies abroad**
- Conclusions



MAJOR CHINESE COMPANIES (OVERSEAS)

China Minmetals (MMG) in expansion. Las Bambas opened 2016.



中国五矿集团公司
CHINA MINMETALS CORPORATION

Zijin in expansion phase. Acquired 47% in Porgera PNG, 51% in Kolwezi DRC (in production July 2017), 40% Kamoa DRC. Rio blanco Peru development.



Jinchuan in expansion phase. Bakubung platinum mine in operation 2018. Kinsenda DRC development.

JINCHUAN 金川

Chinalco, world leading aluminium producer. 10% owner of Rio Tinto. Expansion in base metals. Toromocho mine in Peru, developing Simandou iron ore mine in Guinea.



HBIS Group Co. Ltd. (formerly Hebei Iron & Steel Group), is China's second largest iron and steel producer and third largest in the world. Developing Palabora copper mine.



Bayin owner of Gold One, largest shareholder (20%) in Sibanye.



白银有色集团股份有限公司
BAIYIN NONFERROUS GROUP CO., LTD

China molybdenum. Take over of Tenke Fungurume in DRC and Nióbio, Fosfatos Brazil.



Source: Various



AGENDA

- Global background
- Chinese mining investments globally
- Chinese mining investments in Africa
- Chinese companies abroad
- **Conclusions**

MYTHS AND FACTS

- **China is still a minor player in global mining outside of China.**
- **China has NOT taken control of Africa's mineral resources.**
- **China is increasing its presence in Africa, BUT from a low level.**
- **China is in control of 2.4% of Africa's mining output 2014. One company: Anglo American is in control of 12.6%.**
- **Copper is the single most important commodity for China.**
- **Chinese investors range from small-scale operators to large state-owned companies. They behave differently. It is not possible to treat them all as one.**
- **Chinese investments into Africa create competition and give African governments an alternative to traditional investors and the possibility to chose.**



Thank you for your attention!

Magnus Ericsson

E-mail: magnus@gladtjarnen.se Phone: +46-70-558 0065