



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL



Mineral statistics information from the BGS – what we have and why it matters

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Overview

- History
- What we do
- What information we have
- Who uses the data
- EU27 apparent import dependency
- Summary

History of BGS mineral statistics

www.bgs.ac.uk

- Data from 1913
- Summary statistics published 1916 as part of an initiative to promote development and industrial use of raw materials
- WWI – advice on sources of supply given to manufacturers
- WWII – staff lent to Ministry of Economic Warfare
- 1970s-90s member of International Strategic Minerals Inventory
- Early 1990s mass flow analysis for Statistical Office of EC
- 2004 – DTI withdrew long-standing funding
- 2004 – compilation of non-European trade suspended
- 2004 – publications free to download on

MineralsUK
Centre for sustainable mineral development



Compilers of world industrial mineral and metal statistics

	British Geological Survey	Austrian Ministry Economics Labour	United States Geological Survey
Production	World mine, metal, ind mins, fuel. EU aggregates & cement	World mine, metal, ind mins, fuel	World mine, metal, ind mins, fuel, construction, explosives
Trade	EU, applicants & associates. Some world (not pub.)		Some in country reports
Commentary	In EMS, some commodities in WMP		Yes – by country and commodity
Other	Separate commodity profiles	Summary tables political/economic region	Mineral industry structure. Mineral Comm Summaries



Collaborative partners

www.igpa.ac.uk

- All data providers – it's a two-way process
- International Consultative Group on Non-Ferrous Metals Statistics
- Austrian Federal Ministry of Economics and Labour
- World Bureau of Metal Statistics
- International Fertiliser Association
- The Kimberley Process



What we have – commodities information

www.tgs.ac.uk

- Mineral Profiles – general information on geology, processing and use of 12 commodities
- 23 Mineral Planning Factsheets on minerals of economic importance to Britain
- Mineral Matters – 13 leaflets on a wide range of topical minerals issues such as sustainable development, mineral deposits and resources, planning, supply, demand, recycling, trade and minerals in everyday life
- Commodity summaries in World Mineral Production

All free to download on **MineralsUK**
Centre for sustainable mineral development





What we have – statistics

New country
 New commodity

Production of chromium ores and concentrates
 Default Values: From Place: Jan, To units: Dec, Source: 1

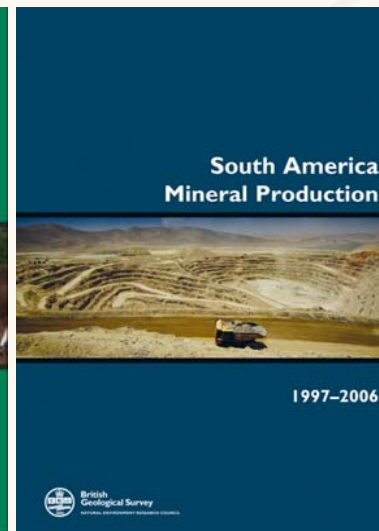
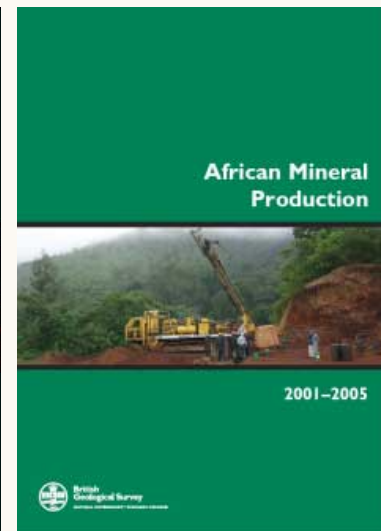
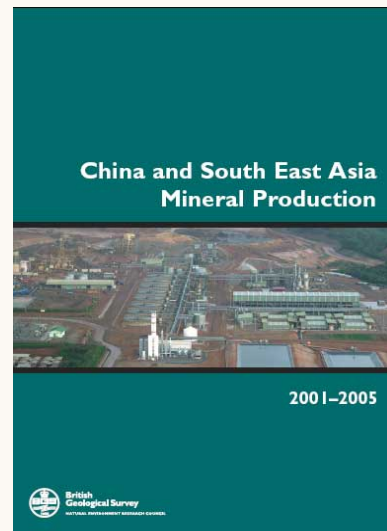
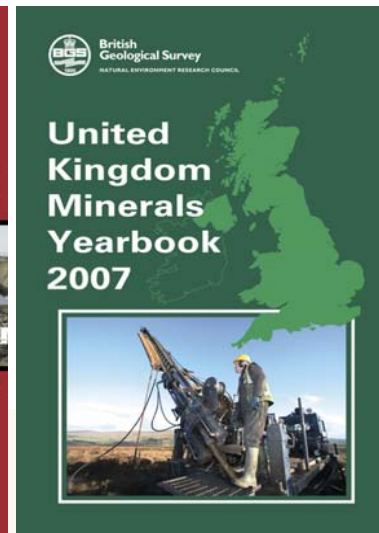
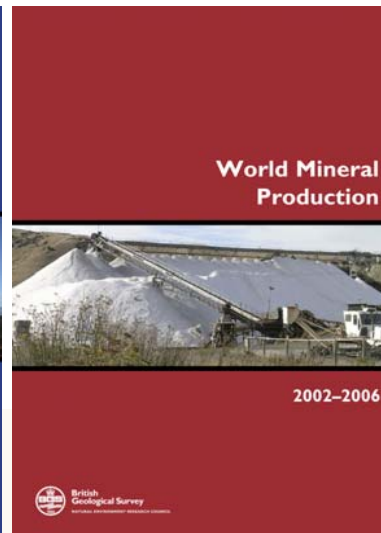
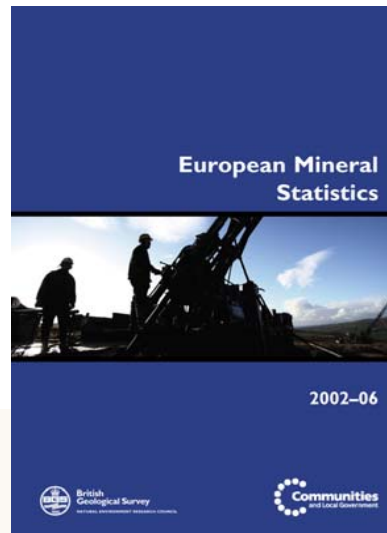
country:	commodity:	2003	2004	2005	2006	2007
Albania		193 000	193 000	170 000	201 120	323 570
Finland		549 000	580 000	572 000	549 000	556 000
Russia		169 200	447 300	772 000	966 095	...
Turkey		100 000	436 639	688 377	1 517 794	X
Madagascar		45 040	77 386	93 384	116 290	...
South Africa		7 405 391	7 676 799	7 502 762	7 418 326	9 646 958
Sudan		37 000	26 000	21 654	24 200	37 656
Zimbabwe		72 558	668 391	511 720	700 001	...
Cuba		34 300	40 300	34 000	*34 000	...
Brazil		376 862	593 476	616 534	562 739	627 772
Afghanistan		66 500	66 500	66 500	66 500	...
Burma		(e) *3 000	(e) *3 000	(e) *3 000	(e) *3 000	...
China		197 800	230 000	220 000	220 000	220 000
India		(e) 2 904 809	(e) 3 621 394	(e) 3 714 284	(e) 4 095 513	X
Indonesia		X	X	X
Iran		134 872	(b)(c) 224 911	(b)(c) 244 603
Kazakhstan		2 927 900	3 287 100	3 581 242	3 366 078	...
Oman		70 500	70 500	70 500	70 500	...
Pakistan		(d) 30 657	(d) 29 230	(d) 56 359	(d) 64 572	X
Philippines (b)		33 778	42 139	36 070	46 728	31 593
United Arab Emirate:		7 089	7 089
Vietnam		91 000	82 000	5 700	6 500	X
Australia		67 271	110 273	90 260	107 103	99 147

- World production 1913 to 2007
- World trade 1913 to 2002
- EU trade to 2007
- 75 commodities & 150 sub-commodities
- Database of 200000 records, from 1992 to 2007
- Current editions – free pdfs
- 1992-2007 available in rich text format
- Pre-1992 photocopies only

Statistics on MineralsUK

Centre for sustainable mineral development

www.mineralsuk.ac.uk



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THE MINERAL INDUSTRY OF
THE BRITISH EMPIRE
AND
FOREIGN COUNTRIES

STATISTICAL SUMMARY
(Production, Imports and Exports)
1927-1929



LONDON:
PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE
To be purchased directly from H.M. STATIONERY OFFICE at the following addresses:
Adastral House, Kingsway, London, W.C.2; 120, George Street, Edinburgh;
York Street, Manchester; 1, St. Andrew's Crescent, Cardiff;
15, Donegall Square West, Belfast;
or through any Bookseller.

1930.

Price 5s. 6d. Net.

61-135-0-29.

Next

www.igs.ac.uk

- UK Minerals Yearbook tables to be made available in Excel format
 - Archive of world statistical books to be scanned and presented as eBooks
- and all to be available on

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Aluminium and Bauxite
Production of Primary Aluminium

Country	1987	1988	1989	1990	1991
United Kingdom	256 302	205 165	207 213	503 736	230 172
France	222 703	237 856	224 533	330 834	245 084
Germany, Federal Republic of	702 628	782 027	738 703	714 612	705 087
Greece	126 151	142 253	144 833	132 263	135 287
Italy	232 693	228 310	238 500	238 800	211 287
Netherlands	225 533	220 359	229 243	227 054	(b)
Spain	341 693	288 066	292 403	358 900	
Austria	35 414	35 454	32 533	30 454	
Czechoslovakia	35 565	31 426	32 875		
German Democratic Republic	15 592	14 350	13 593		
Poland	27 709	24 852	22 252		
Iceland	83 185	82 081	88 177		
Norway (a)	682 213	638 254	507 270		
Finland	47 703	47 703	47 703		
Romania	286 000	230 000	230 000		
Soviet Union	3 602 000	3 633 000	3 450 000		
Sweden	70 462	74 711	74 711		
Switzerland	75 389	71 356	71 356		
Thailand	41 682	37 738	37 738		
Yugoslavia	286 633	321 000	321 000		
Canada	71 260	63 700			
Egypt	20 800	173 800			
China	20 280	133 200			
South Africa	170 000	172 000			
Cuba	1 640 000	1 534 000	1 534 000		
Mexico	39 200	38 222	71 500		
USA	3 340 000	3 544 200	4 032 000		
Argentina	126 207	157 107	154 254		
Brazil	643 500	673 120	602 402		
Norway	1 312	9 900	24 200		
Vietnam	433 200	418 200	442 202		
Bahrain	180 264	282 820	281 200	21	
China	4 112 200	7 210 000	7 210 000	85 4	
Duba	135 978	187 320	169 250	174 3	
India	203 272	214 693	181 250	432 228	
Indonesia	231 802	185 112	191 200	392 136	
Iran	37 801	38 180	41 319	94 941	
Japan	4 200	36 000	31 214	34 220	
Korea, Dem. P.R. of	13 264	0 000	1 200	11 000	
Korea, Republic of	15 777	6 130	13 263	1 226	
Australia	1 093 200	1 349 000	1 243 200	1 234 000	1 224
New Zealand	262 200	286 732	284 810	289 732	289 4
World total	27 702 200	28 009 000	28 100 200	28 200 000	28 300 000

(a) May include very major purity aluminium
(b) 2002

Aluminium and Bauxite

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World total	27 702 200	28 009 000	28 100 200	28 200 000	28 300 000



100-year series

www.bgs.ac.uk

We are investigating methods for providing the whole archive in spreadsheet or database format

Free on www.MineralsUK.com

Centre for sustainable mineral development

The screenshot displays the MineralsUK website interface. At the top, there is a blue navigation bar with the BGS logo and the text 'MineralsUK Centre for sustainable mineral development'. To the right of the logo are links for 'Home | Downloads | Minerals & you | Contact us'. Below this is a secondary navigation bar with colored buttons for 'Planning', 'Digital maps', 'Mine & quarry', 'Commodity statistics' (highlighted in red), 'Exploration', and 'Environment'. On the left side, there is a search box with a 'Go' button and a list of navigation links: 'United Kingdom', 'Europe', 'World', 'Commodity profiles', 'Downloads', and 'RSS feed'. The main content area features a breadcrumb trail 'Home > Commodity statistics' followed by the heading 'Commodity statistics' in red. Below the heading is a photograph of a row of industrial furnaces with glowing molten metal inside. To the right of the photo is a red text box containing a description of the team's work. At the bottom of the page, there is a footer with a row of blue buttons: 'About us', 'Legal', 'BGS home', 'Glossary', 'FAQs', 'Mailing', and 'Site map'. Below this is a grey bar with the 'Communities and Local Government' logo and the text 'These pages are hosted by the British Geological Survey which retains full rights and responsibilities for its content.'

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An experienced team compiles statistics of mineral production and trade for the United Kingdom and the world. The data are published both as annual books and ad-hoc/customised reports to suit particular requirements. The work involves close contact with the minerals industry in the UK and with a network of contacts throughout the world. Quality is assured by participating in international forums and a by a regular exchange of information with geological survey organisations, minerals bureaux and other official and commercial entities world-wide.

About us Legal BGS home Glossary FAQs Mailing Site map

Communities and Local Government

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Who uses the data?

Why does it matter?

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- Mining companies – for commercial planning
- Government – support to industry
- Environmental researchers – investigating the anthropogenic effects of mining on the atmosphere
- Medical researchers – asbestos-related illness
- Lawyers – asbestos-related litigation
- Publishers – books for Metal Bulletin and BHP Billiton
- EU projects – eg raw materials input-output models
- European Commission – advice on trends in raw materials supply



Security of supply

www.tgs.ac.uk

Critical minerals: definition

**Critical to industry and
vulnerable to supply interruption**

Critical?

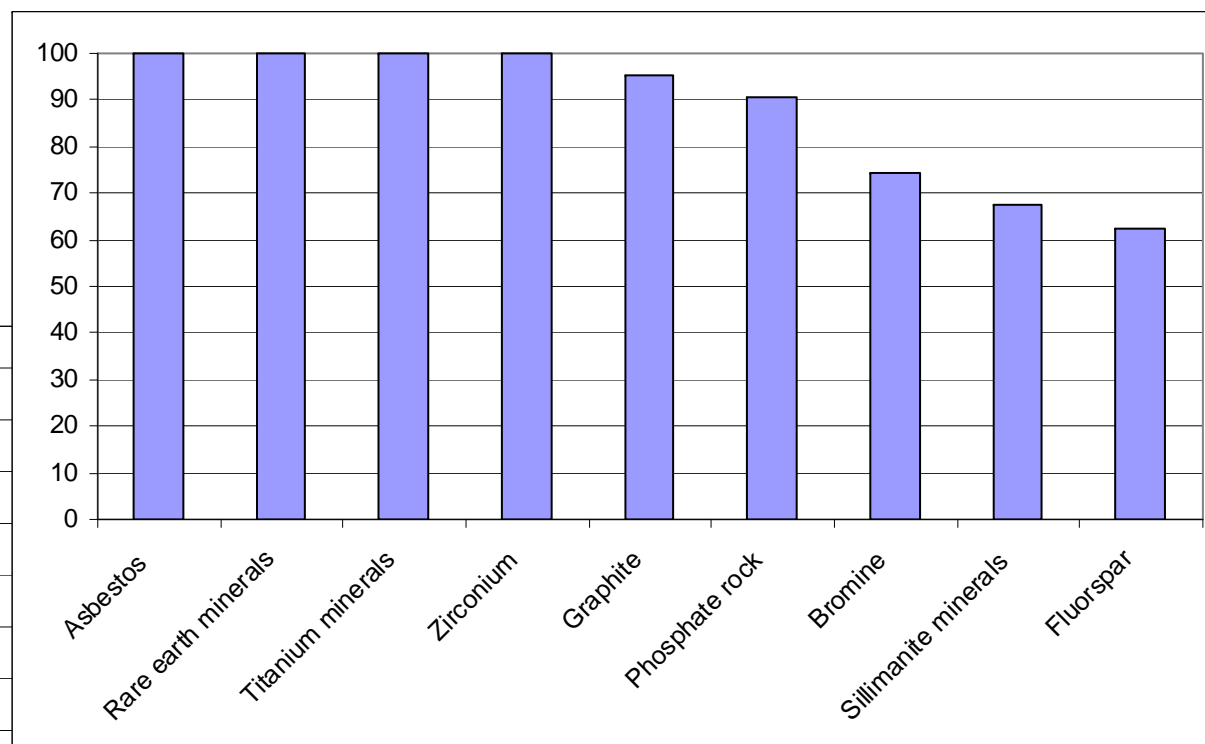
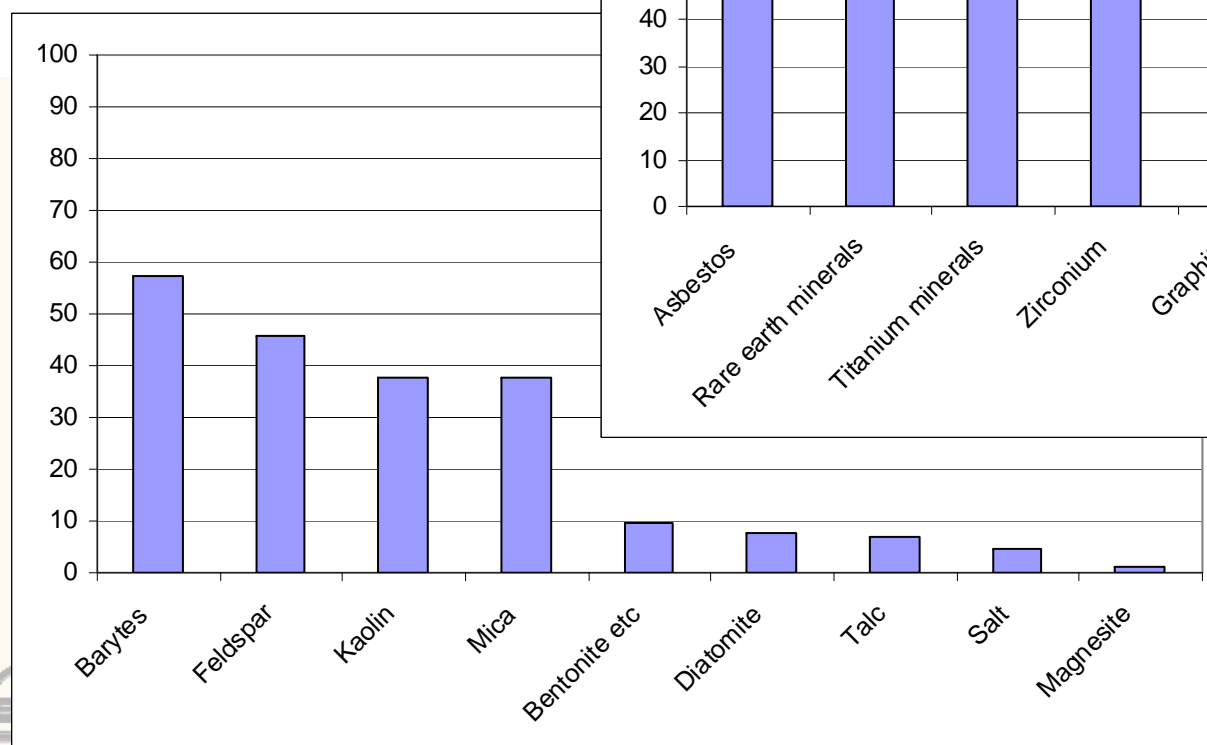
- phosphate rock
- natural graphite
- lithium minerals
- rare earth oxides
- nickel
- titanium
- steel alloy metals (eg Cr V Nb W)
- platinum group metals



EU27 apparent import dependence

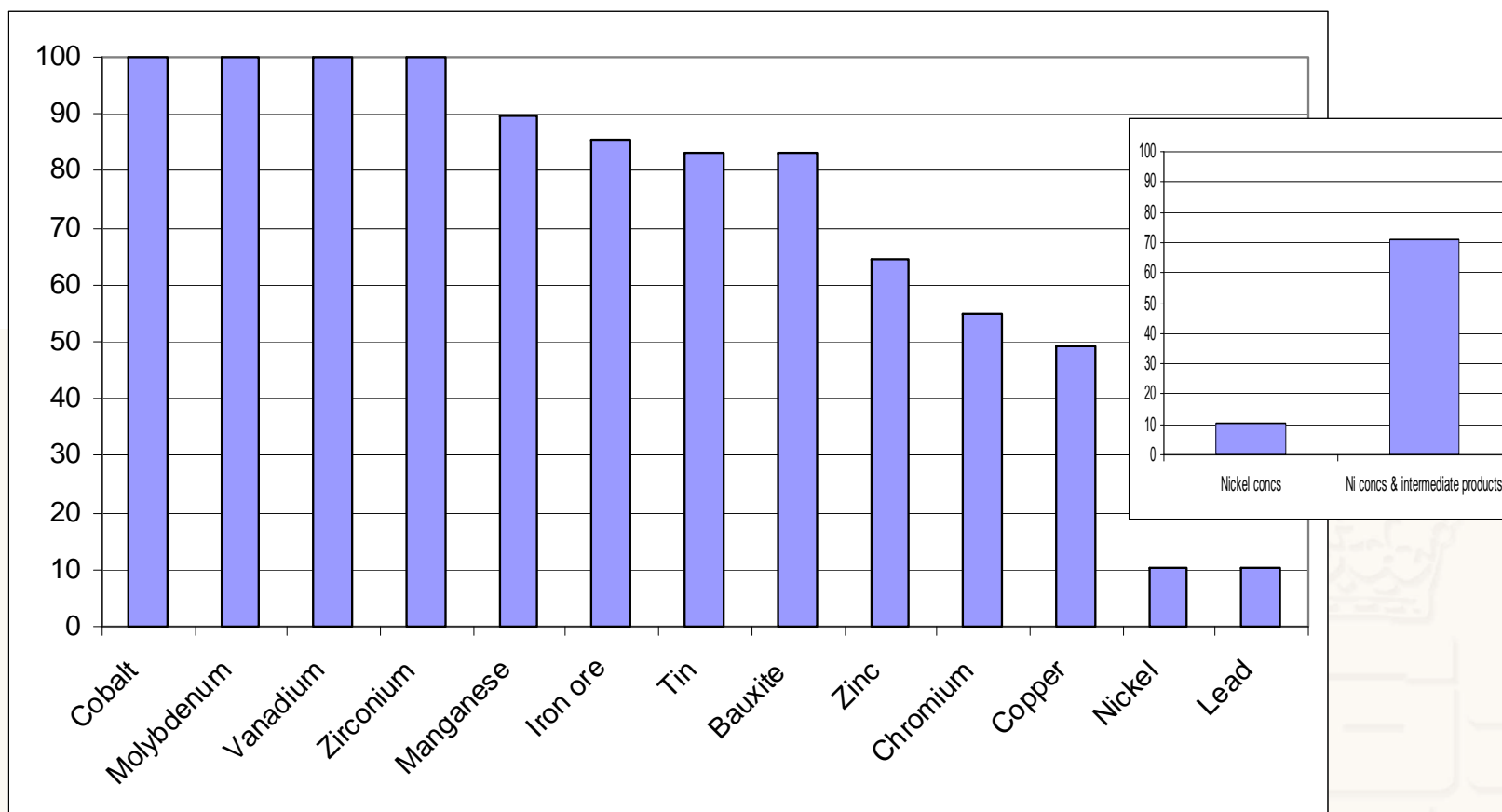
Industrial minerals

Study for EU
DG Enterprise



EU27 apparent import dependence

Metal concentrates



Study for EU DG Enterprise

EU27 import dependency trends

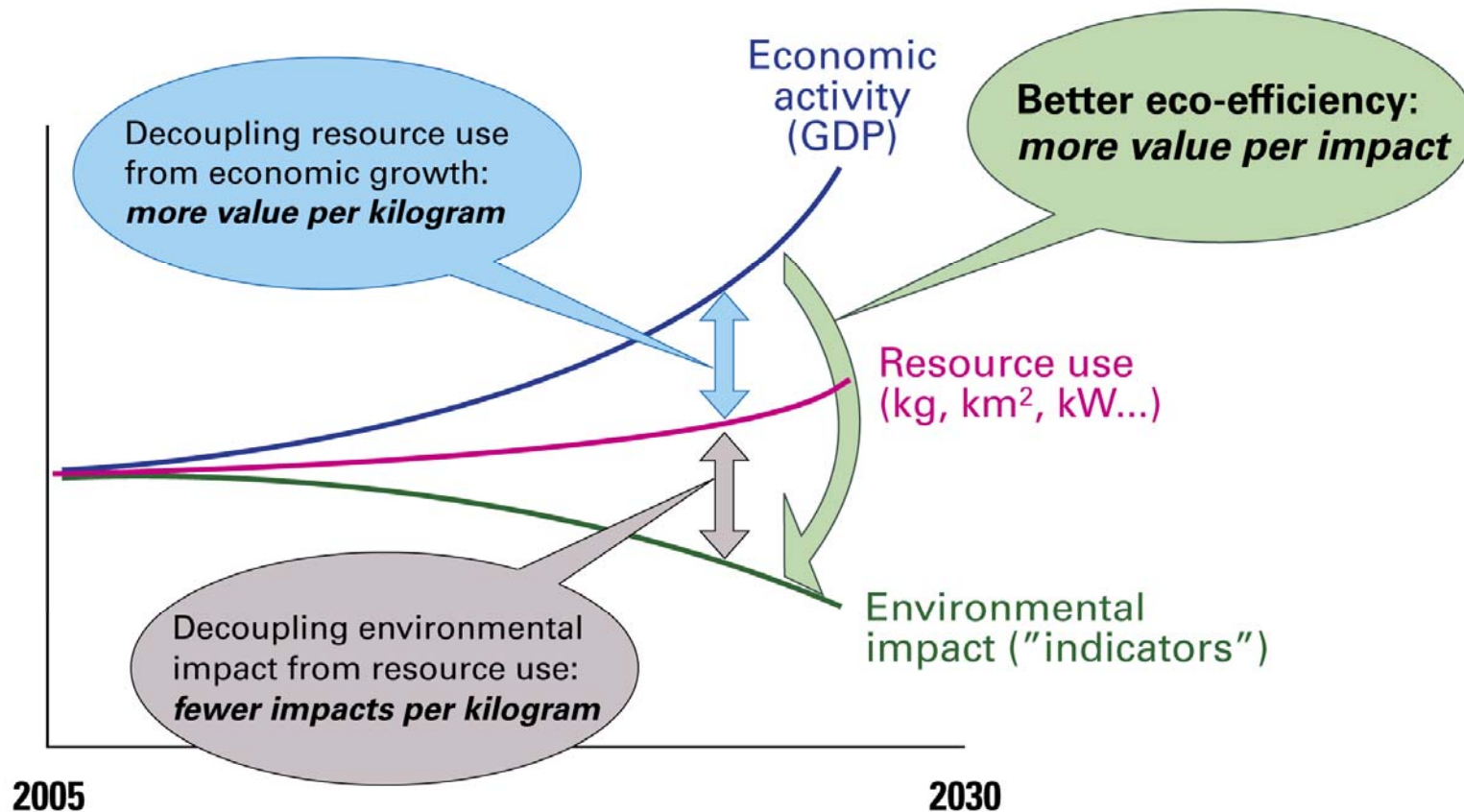
www.tgs.ac.uk

- Generally little change 2002-06
- Some industrial minerals show increasing dependence on imports
 - bromine 10-75%
 - feldspar 30-46%
 - graphite 82-95%
 - kaolin 33-38%
- New Ni mine production in Spain is a factor in the fall of apparent import dependency (82-71%)
- Increased Zn mine production in Rep. Ireland is the main factor in decrease in apparent import dependency (71-65%)



Decoupling – more efficient use of resources

www.tgs.ac.uk



Good data are vital for good decision-making

www.tga.ac.uk

- Good data are not always available (primary data collection problems, confidentiality)
- Appropriate data are not always available (restrictions in trade codes, confidentiality, compilation not currently undertaken)
- Necessary to understand the suitability or restrictions of data
- Important to understand the context to give a good interpretation
- Decision makers need good data and interpretation of data



What BGS can offer

www.bgs.ac.uk

- Long time series of annual data on production and trade
- Extensive network of contacts
- Advice on the suitability of the data
- Informed analysis
- Detailed studies involving minerals production and trade
- Commodities studies
- Other BGS resources (scientists, laboratories, IT, GIS, web, databasing, design, print management)



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