



La Vida profesional de Guillaume Pitron i els conflictes que generen les explotacions de metalls rars al congo

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2.2) Conflictes armats al Congo i minerals del Congo

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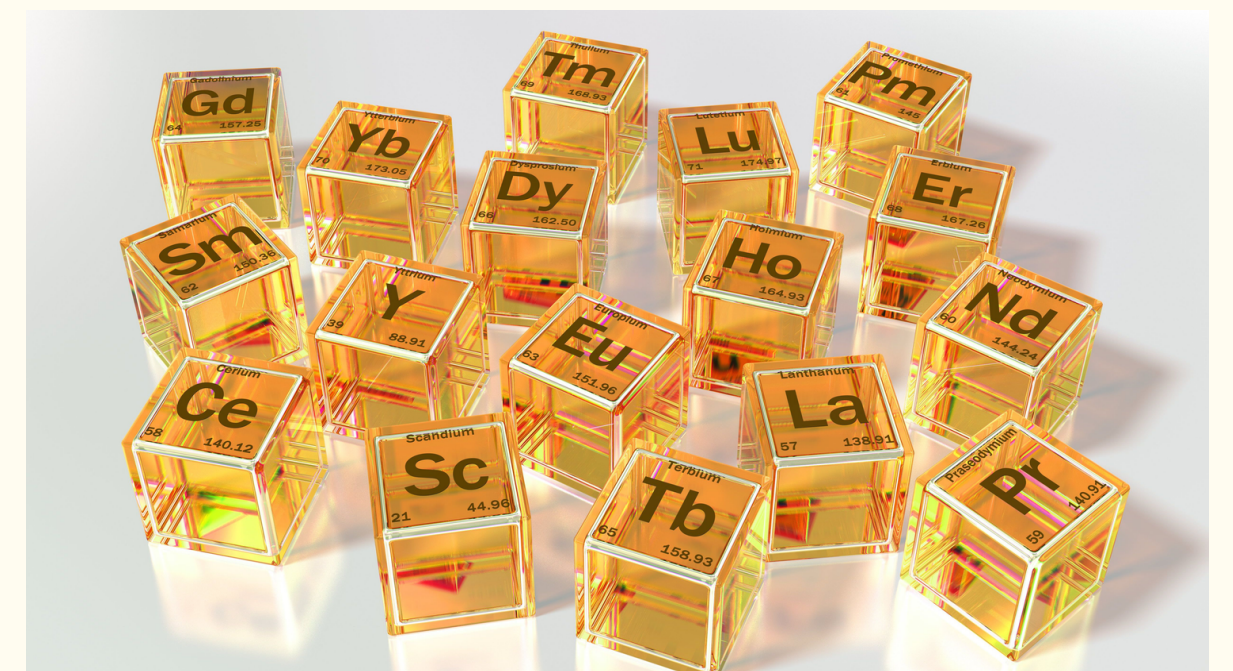
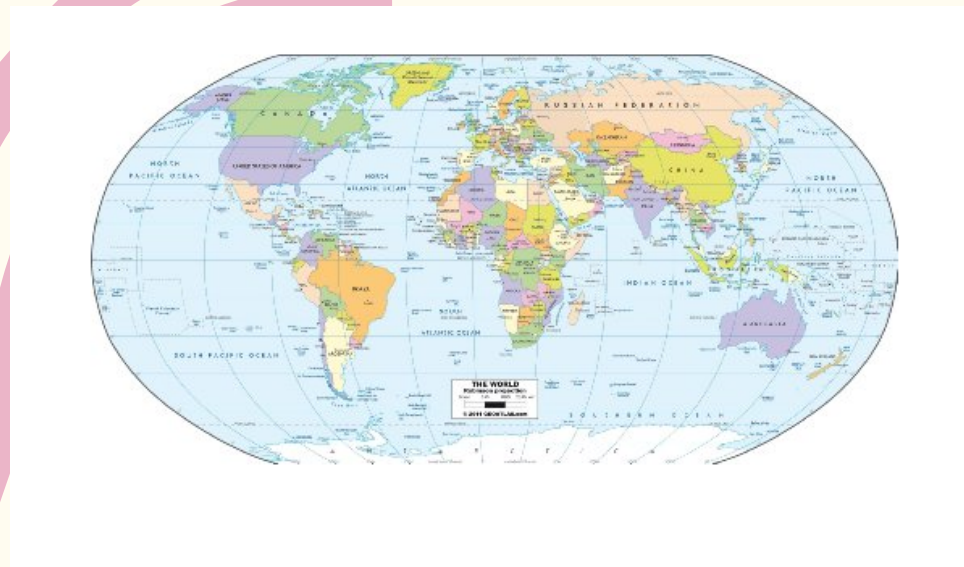
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2.5) Com actua la campanya



1.1) Biografia Guillaume Pitron

Periodista



1.2) Llocs on ha treballat

2006
Valeurs Actuelles

2008
Afrique Magazine

2009
L'expansion

2011
Le Monde Diplomatique

América

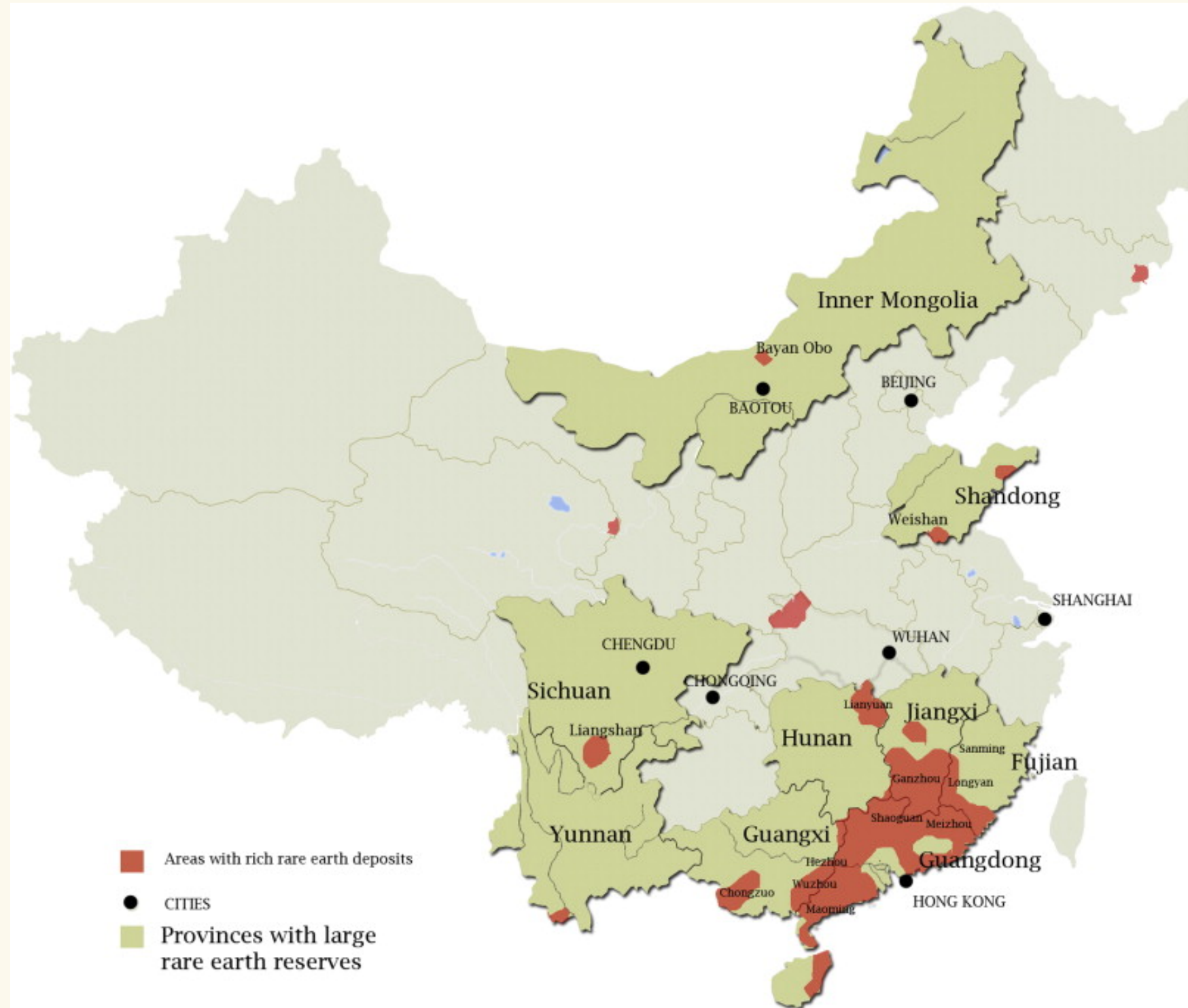
Orient

Àfrica

Asia

Europa

1.3) Jaciments a la Xina, Sud Àfrica, USA i Europa



Cerium



dysprosium



Erbium



neodymium



praseodymium



dysprosium



CONIAS RISK INTELLIGENCE

CONIAS Subnational Safety Index



Critical mineral deposits

- ◆ Antimony
- ◆ Barite
- ◆ Beryllium
- ◆ Cobalt
- ◆ Fluorite
- ◆ Gallium
- ◆ Graphite
- ◆ Indium
- ◆ Lithium
- ◆ Manganese
- ◆ Niobium and Tantalum
- ◆ Platinum-Group Elements
- ◆ Rare-Earth Elements
- ◆ Tellurium
- ◆ Tin
- ◆ Titanium
- ◆ Vanadium
- ◆ Zirconium and Hafnium

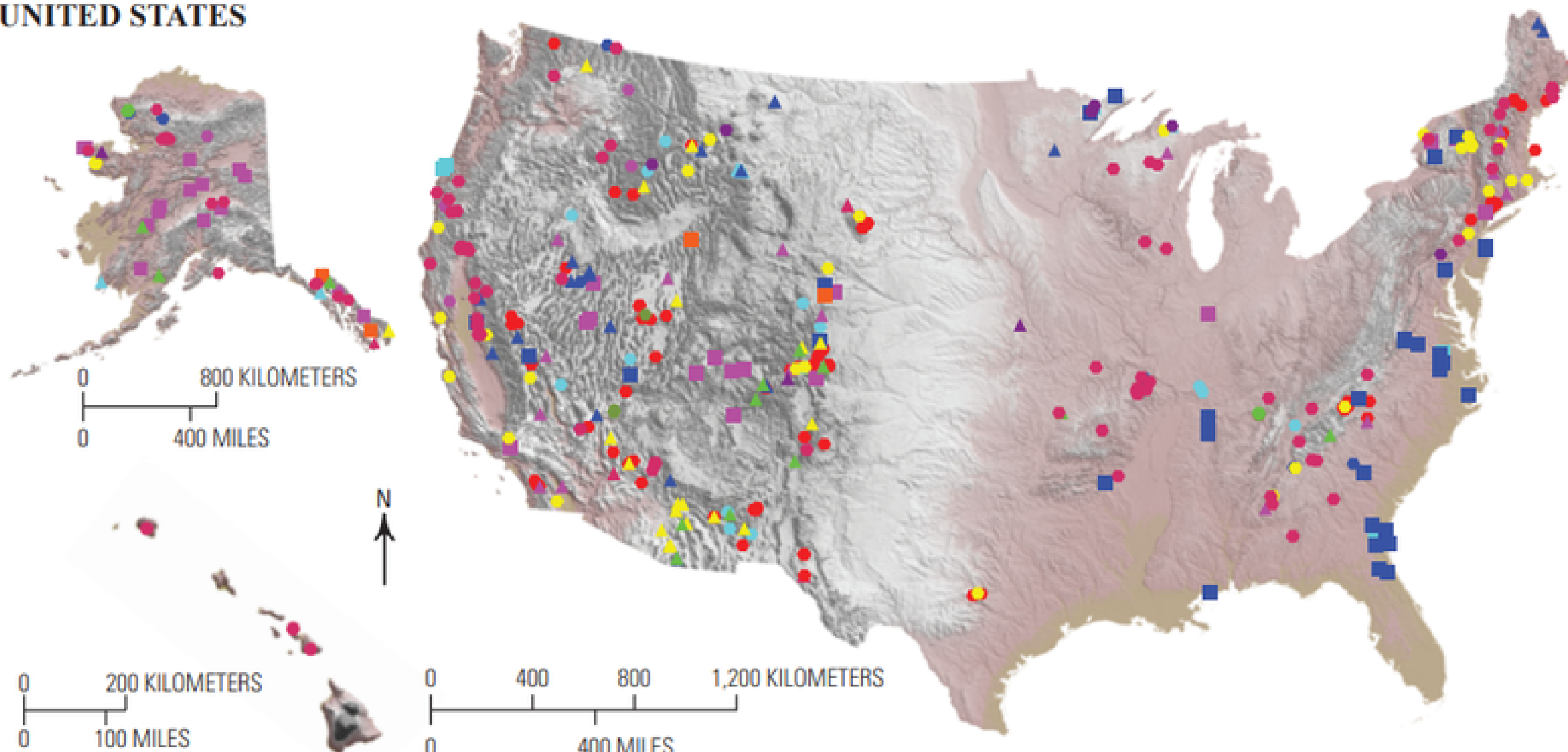
Major mineral deposits

- ▲ Aluminum
- ▲ Clays
- ▲ Copper
- ▲ Diamond
- ▲ Gold
- ▲ Iron
- ▲ Lead-Zinc
- ▲ Nickel
- ▲ PGE
- ▲ Potash

Sources: USGS
Major mineral deposits,
Critical mineral deposits



UNITED STATES



EXPLANATION Critical Minerals

- | | |
|-------------|---------------------------|
| ● Antimony | ▲ Manganese |
| ● Barite | ▲ Niobium and Tantalum |
| ● Beryllium | ▲ Platinum Group Elements |
| ● Cobalt | ▲ Rare Earth Elements |
| ● Fluorite | ▲ Rhenium |
| ● Gallium | ▲ Tellurium |
| ● Germanium | ■ Tin |
| ● Graphite | ■ Titanium |
| ● Indium | ■ Vanadium |
| ▲ Lithium | ■ Zirconium |

Figure 1. Critical mineral resources in Australia, Canada, and the United States (Labay and others, 2017). Critical minerals support a broad range of industrial sectors and a diversity of high-tech industries important to global economies (see Primary Uses of Critical Minerals sidebar).

Base from National Oceanic and Atmospheric Administration ETOPO1 1 Arc-Minute Global Relief Model, 2017

Scandium



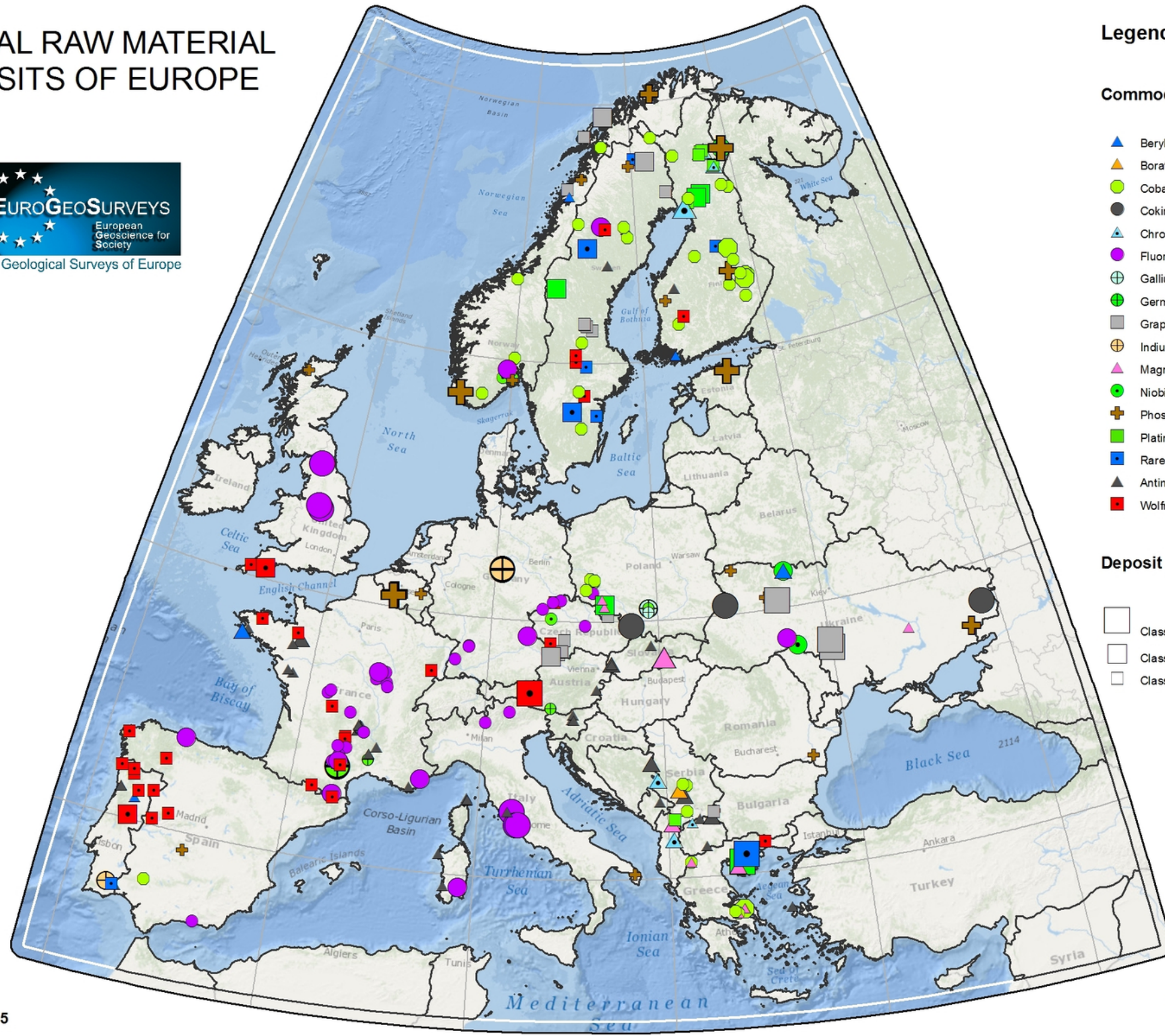
Yttrium



Lanthanum



CRITICAL RAW MATERIAL DEPOSITS OF EUROPE



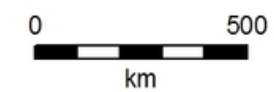
Legend

Commodity

- ▲ Beryllium
- ▲ Borates
- Cobalt
- Coking coal
- ▲ Chromium
- Fluorite
- ⊕ Gallium
- Germanium
- Graphite
- ⊕ Indium
- ▲ Magnesite, magnesium
- Niobium
- ⊕ Phosphate
- Platinum, platinoids group metals
- Rare earths elements
- ▲ Antimony
- Wolfram

Deposit size

- Class A (super-large)
- Class B (large)
- Class C (medium)



Lanthanum



Samarium



#ConflictMinerals és una campanya de Justícia i Pau per donar a conèixer la relació que hi ha entre els productes tecnològics i els conflictes armats i violacions de drets humans als països on s'extreuen els minerals necessaris per a la seva fabricació.

#CONFLICT
MINERALS

2.1) Explicació de la campanya

2.2) Conflictes armats al Congo i minerals del congo

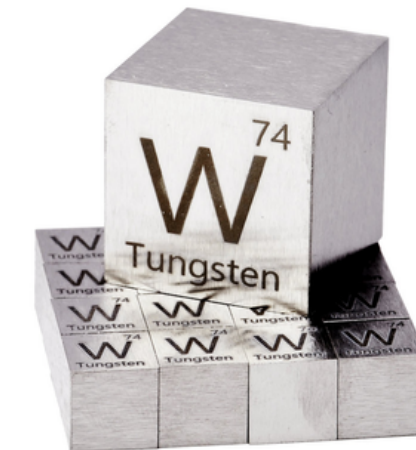
Tin



Tantalum



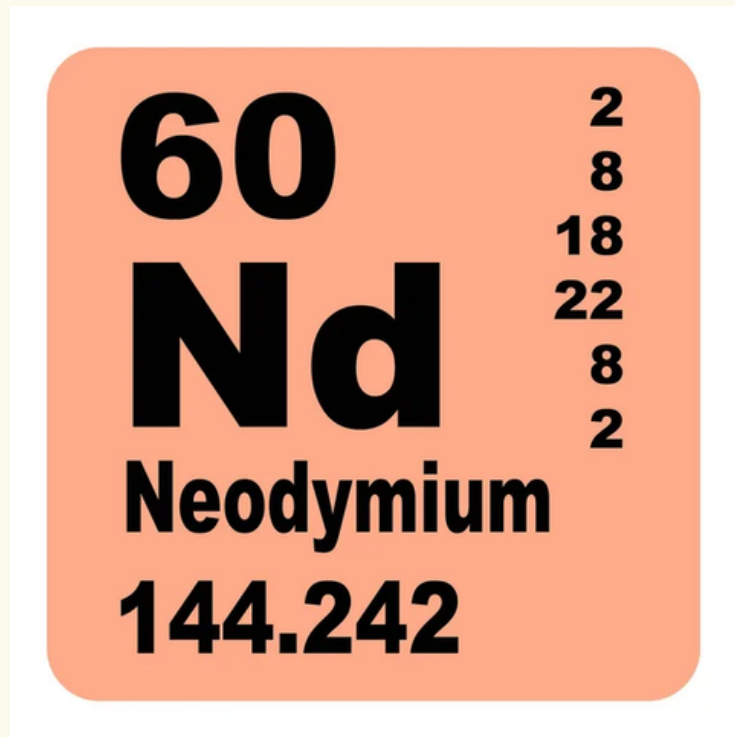
Tungsten



TAULA PERIÒDICA DELS ELEMENTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
|---|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1 1,008 H HIDROGEN 1s ¹ 13,60 2,20 | | | | | | | | | | | | | | | | | 2 4,0026 He HELI 1s ² 24,59 | |
| 2 | 3 6,94 Li LITI [He] 2s ¹ 5,39 0,98 | 4 9,0122 Be BERIL·LI [He] 2s ² 9,32 1,57 | | | | | 46 106,42 Pd PAL·LADI [Kr] 4d ¹⁰ 5s ⁰ 8,34 2,20 | | | | | | | 5 10,81 B BOR [He] 2s ² 2p ¹ 8,30 2,04 | 6 12,011 C CARBONI [He] 2s ² 2p ² 11,26 2,55 | 7 14,007 N NITROGEN [He] 2s ² 2p ³ 14,53 3,04 | 8 15,999 O FLUOR [He] 2s ² 2p ⁴ 13,62 3,44 | 9 18,9984 F FLUOR [He] 2s ² 2p ⁵ 17,42 3,98 | 10 20,1797 Ne NEO [He] 2s ² 2p ⁶ 21,56 |
| 3 | 11 22,9898 Na SODI [Ne] 3s ¹ 5,14 0,93 | 12 24,305 Mg MAGNESI [Ne] 3s ² 7,65 1,31 | | | | | | | | | | | | 13 26,9815 Al ALUMINI [Ne] 3s ² 3p ¹ 5,99 1,61 | 14 28,085 Si SILICI [Ne] 3s ² 3p ² 8,15 1,90 | 15 30,9738 P FOSFOR [Ne] 3s ² 3p ³ 10,49 2,19 | 16 32,06 S SOFRE [Ne] 3s ² 3p ⁴ 10,36 2,58 | 17 35,45 Cl CLOR [Ne] 3s ² 3p ⁵ 12,97 3,16 | 18 39,948 Ar ARGO [Ne] 3s ² 3p ⁶ 15,76 |
| 4 | 19 39,0983 K POTASSI [Ar] 4s ¹ 4,34 0,82 | 20 40,078 Ca CALCI [Ar] 4s ² 6,11 1,00 | 21 44,9559 Sc ESCANDI [Ar] 3d ¹ 4s ² 6,56 1,36 | 22 47,867 Ti TITANI [Ar] 3d ² 4s ² 6,83 1,54 | 23 50,9415 V VANADI [Ar] 3d ³ 4s ² 6,75 1,63 | 24 51,9961 Cr CROM [Ar] 3d ⁵ 4s ¹ 6,77 1,66 | 25 54,9380 Mn MANGANES [Ar] 3d ⁵ 4s ² 7,43 1,55 | 26 55,845 Fe FERRO [Ar] 3d ⁶ 4s ² 7,90 1,83 | 27 58,9332 Co COBALT [Ar] 3d ⁷ 4s ² 7,88 1,88 | 28 58,6934 Ni NIOQUEL [Ar] 3d ⁸ 4s ² 7,64 1,91 | 29 63,546 Cu COURE [Ar] 3d ¹⁰ 4s ¹ 7,73 1,90 | 30 65,38 Zn ZINC [Ar] 3d ¹⁰ 4s ² 7,73 1,90 | 31 69,723 Ga GAL·LI [Ar] 3d ¹⁰ 4s ² 4p ¹ 6,00 1,81 | 32 72,630 Ge GERMANI [Ar] 3d ¹⁰ 4s ² 4p ² 7,90 2,01 | 33 74,9216 As ARSENIC [Ar] 3d ¹⁰ 4s ² 4p ³ 9,79 2,18 | 34 78,971 Se SELENI [Ar] 3d ¹⁰ 4s ² 4p ⁴ 9,75 2,55 | 35 79,904 Br BROM [Ar] 3d ¹⁰ 4s ² 4p ⁵ 11,81 2,96 | 36 83,798 Kr CRIPTO [Ar] 3d ¹⁰ 4s ² 4p ⁶ 14,00 3,00 | |
| 5 | 37 85,4678 Rb RUBIDI [Kr] 5s ¹ 4,18 0,82 | 38 87,62 Sr ESTRONCI [Kr] 5s ² 5,69 0,95 | 39 88,9058 Y ITRI [Kr] 4d ¹ 5s ² 6,22 1,22 | 40 91,224 Zr ZIRCONI [Kr] 4d ² 5s ² 6,63 1,33 | 41 92,9064 Nb NIOBI [Kr] 4d ⁴ 5s ¹ 6,76 1,60 | 42 95,95 Mo MOLIBDE [Kr] 4d ⁵ 5s ¹ 7,09 2,16 | 43 (97) Tc TECNECI [Kr] 4d ⁵ 5s ² 7,12 1,90 | 44 101,07 Ru RUTENI [Kr] 4d ⁶ 5s ¹ 7,36 2,20 | 45 102,9055 Rh ROODI [Kr] 4d ⁷ 5s ¹ 7,46 2,28 | 46 106,42 Pd PAL·LADI [Kr] 4d ¹⁰ 5s ⁰ 7,34 2,20 | 47 107,8682 Ag PLATA [Kr] 4d ¹⁰ 5s ¹ 7,58 1,93 | 48 112,414 Cd CADMI [Kr] 4d ¹⁰ 5s ² 8,09 1,69 | 49 114,818 In INDI [Kr] 4d ¹⁰ 5s ² 5p ¹ 7,34 1,78 | 50 118,710 Sn ESTANY [Kr] 4d ¹⁰ 5s ² 5p ² 7,36 1,96 | 51 121,760 Sb ANTIMONI [Kr] 4d ¹⁰ 5s ² 5p ³ 8,61 2,05 | 52 127,60 Te TEL·LURI [Kr] 4d ¹⁰ 5s ² 5p ⁴ 9,01 2,10 | 53 126,9045 I IODE [Kr] 4d ¹⁰ 5s ² 5p ⁵ 10,45 2,66 | 54 131,293 Xe XENO [Kr] 4d ¹⁰ 5s ² 5p ⁶ 12,13 2,60 | |
| 6 | 55 132,9055 Cs CESI [Xe] 6s ¹ 3,89 0,79 | 56 137,327 Ba BARI [Xe] 6s ² 5,21 0,89 | 57 138,9055 La LANTANI [Xe] 5d ¹ 6s ² 5,58 1,10 | 71 178,49 Hf HAFNI [Xe] 4f ¹⁴ 5d ² 6s ² 6,83 1,30 | 72 178,49 Ta TANTAL [Xe] 4f ¹⁴ 5d ³ 6s ² 7,86 2,36 | 73 180,9479 W TUNGSTE [Xe] 4f ¹⁴ 5d ⁴ 6s ² 7,86 2,36 | 74 183,84 Re RENI [Xe] 4f ¹⁴ 5d ⁵ 6s ¹ 8,44 2,20 | 75 186,207 Os OSMI [Xe] 4f ¹⁴ 5d ⁶ 6s ² 8,44 2,20 | 76 190,23 Ir IRIDI [Xe] 4f ¹⁴ 5d ⁷ 6s ² 8,97 2,20 | 77 192,217 Pt PLATI [Xe] 4f ¹⁴ 5d ⁸ 6s ¹ 9,23 2,54 | 78 195,084 Au OR [Xe] 4f ¹⁴ 5d ¹⁰ 6s ¹ 9,23 2,54 | 79 196,9666 Hg MERCURI [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 10,44 2,00 | 80 200,592 Tl TAL·LI [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ¹ 6,11 1,62 | 81 204,38 Pb PLOM [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ² 7,42 2,33 | 82 207,2 Bi BISMUT [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ³ 7,29 2,02 | 83 208,9804 Po POLONI [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁴ 8,41 2,00 | 84 (209) At ASTAT [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁵ 9,32 2,20 | 85 (210) Rn RADIO [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁶ 10,75 | |
| 7 | 87 (223) Fr FRANCI [Rn] 7s ¹ 4,07 0,70 | 88 (226) Ra RADI [Rn] 7s ² 5,28 0,90 | 89 (227) Ac ACTINI [Rn] 6d ¹ 7s ² 5,28 1,10 | 103 (262) Lr LUTECI [Rn] 5f ¹⁴ 6d ¹ 7s ² 6,01 | 104 (267) Rf RUTHERFORDI [Rn] 5f ¹⁴ 6d ² 7s ² 6,01 | 105 (270) Db DUBNI [Rn] 5f ¹⁴ 6d ³ 7s ² 6,8 | 106 (269) Sg SEABORGI [Rn] 5f ¹⁴ 6d ⁴ 7s ² 7,8 | 107 (270) Bh BOHRI [Rn] 5f ¹⁴ 6d ⁵ 7s ² 7,7 | 108 (270) Hs HASI [Rn] 5f ¹⁴ 6d ⁶ 7s ² 7,6 | 109 (278) Mt MEITNERI [Rn] 5f ¹⁴ 6d ⁷ 7s ² 7,6 | 110 (281) Ds DARMSTADTI [Rn] 5f ¹⁴ 6d ⁸ 7s ² 7,6 | 111 (281) Rg ROENTGENI [Rn] 5f ¹⁴ 6d ⁹ 7s ² 7,6 | 112 (285) Cn COPERNICI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7,6 | 113 (286) Nh NIHONI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ¹ 7,6 | 114 (289) Fl FLEROVI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ² 7,6 | 115 (289) Mc MOSCOVI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ³ 7,6 | 116 (293) Lv LIVERMORI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁴ 7,6 | 117 (293) Ts TENNESSI [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁵ 7,6 | 118 (294) Og OGANESSÓ [Rn] 5f ¹⁴ 6d ¹⁰ 7s ² 7p ⁶ 7,6 |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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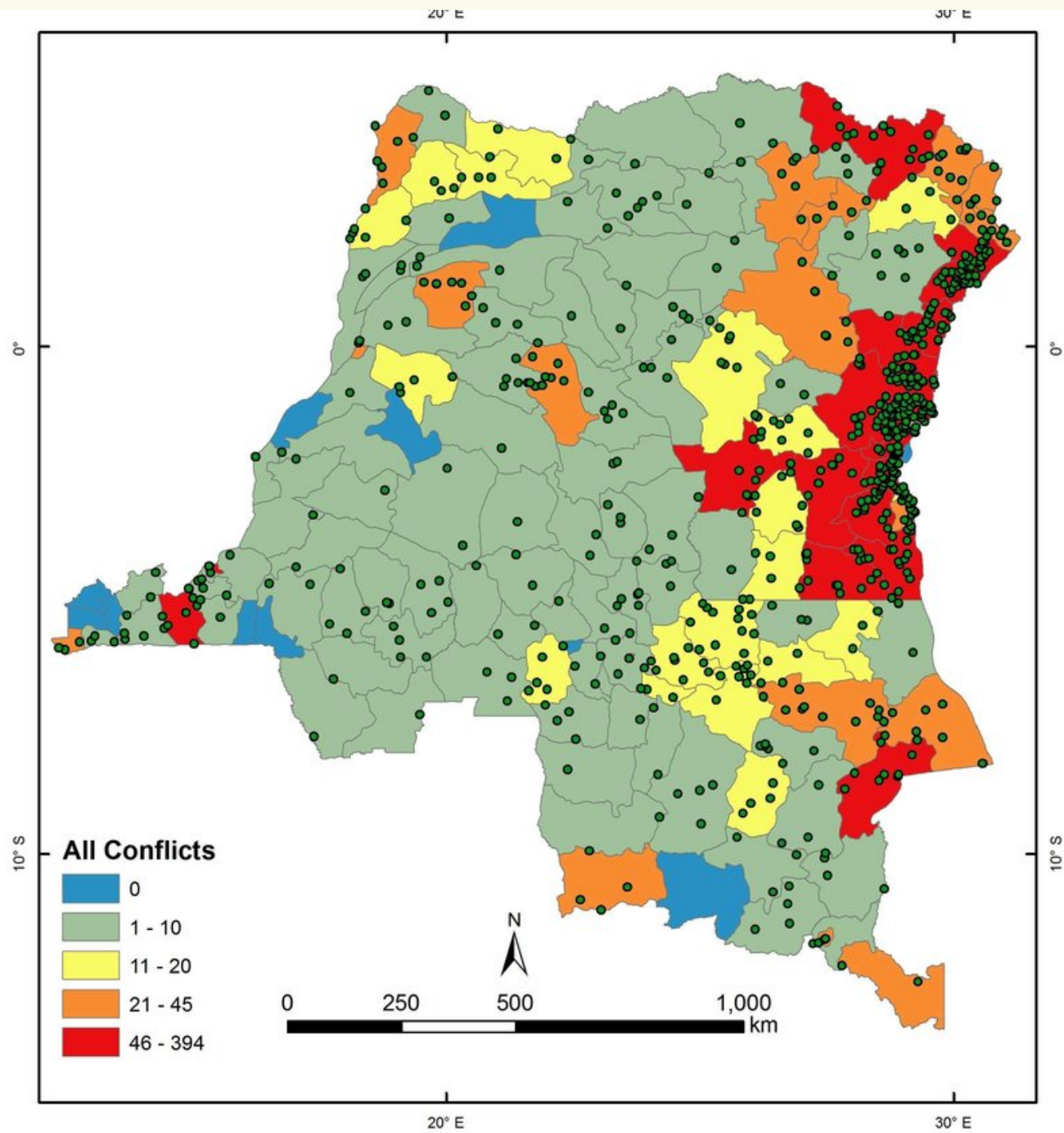


Neodimi

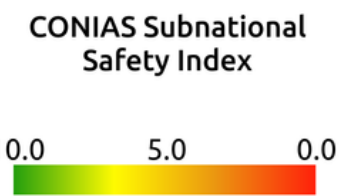


Tuli





CONIAS RISK INTELLIGENCE



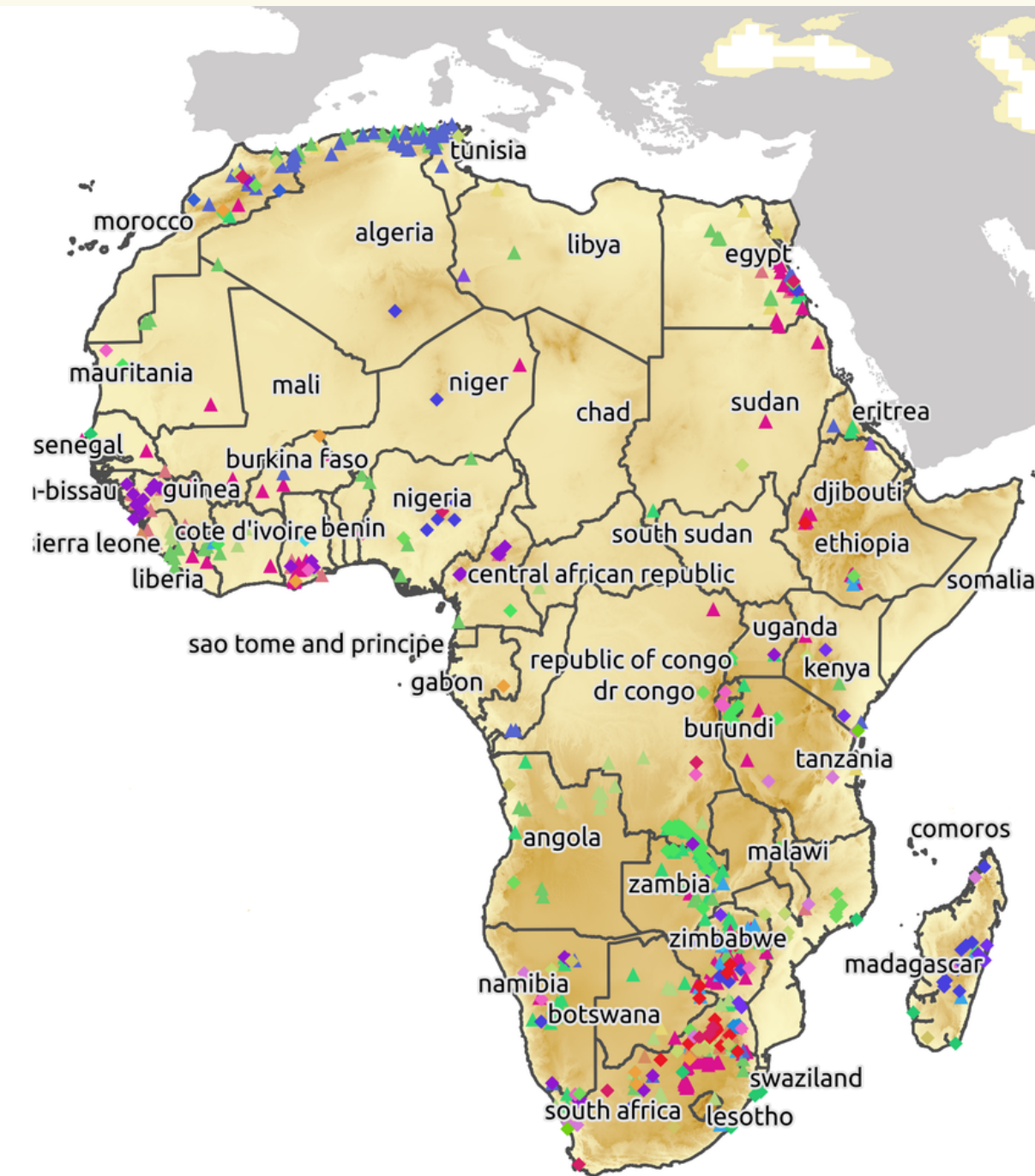
Major mineral deposits

- ▲ Aluminum
- ▲ Clays
- ▲ Copper
- ▲ Diamond
- ▲ Gold
- ▲ Iron
- ▲ Lead-Zinc
- ▲ Nickel
- ▲ PGE
- ▲ Potash

Critical mineral deposits

- ◆ Antimony
- ◆ Barite
- ◆ Beryllium
- ◆ Cobalt
- ◆ Fluorite
- ◆ Gallium
- ◆ Graphite
- ◆ Indium
- ◆ Lithium
- ◆ Manganese
- ◆ Niobium and Tantalum
- ◆ Platinum-Group Elements
- ◆ Rare-Earth Elements
- ◆ Tellurium
- ◆ Tin
- ◆ Titanium
- ◆ Vanadium
- ◆ Zirconium and Hafnium

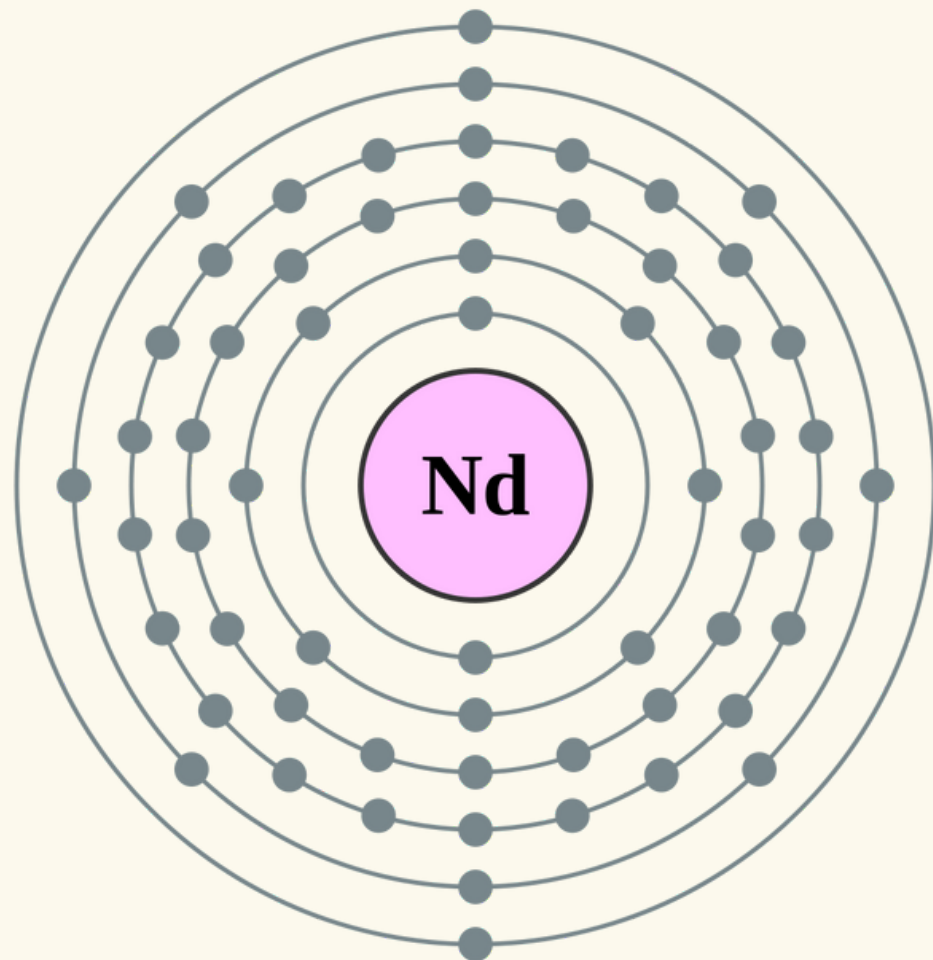
Sources: USGS
Major mineral deposits,
Critical mineral deposits



2.3) Perquè són especials els metalls rars?

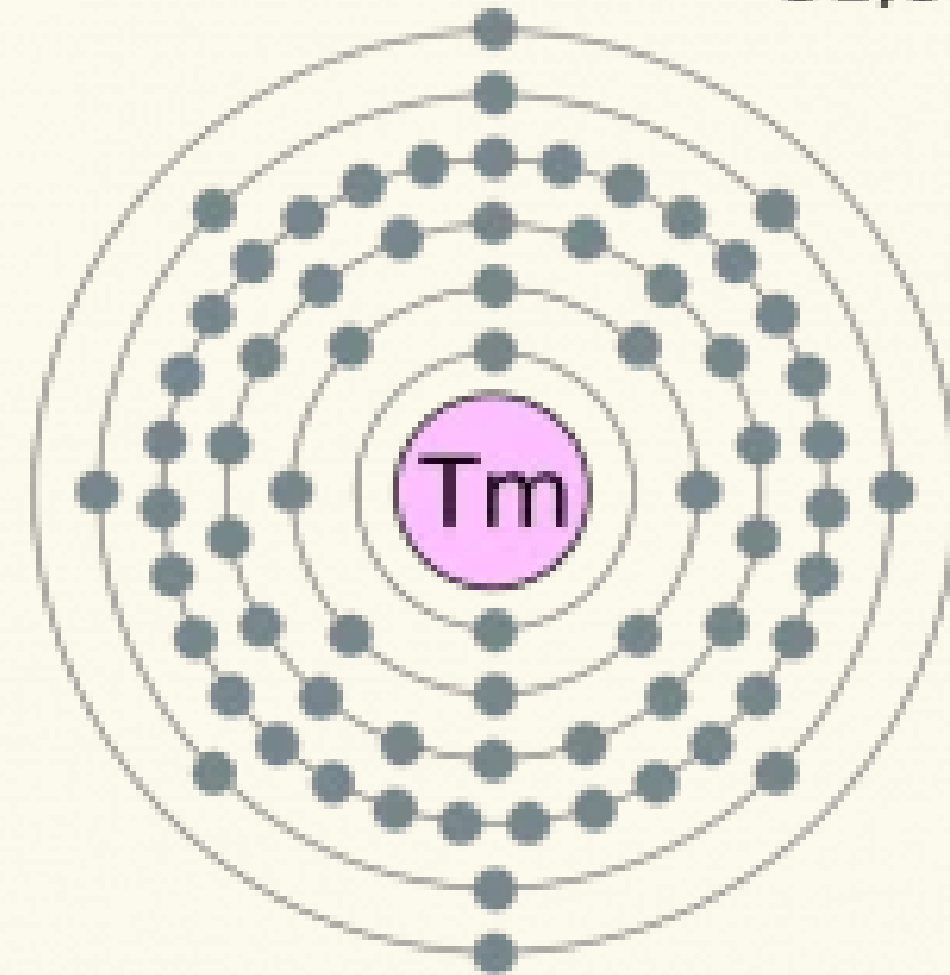
60: Neodimio

2,8,18,22,8,2



69: Thulium

2,8,18,
31,8,2



2.4) Conseqüències de l'extracció de metalls rars al congo

1) Creació de grups armats

2) Obligació cap als habitants de pobles del congo per a treballar als jaciments

3) Degut a les males condicions de treball, sorgiments de malalties i accidents laborals





2.5) Com actua la campanya

Cooperació

Incidència política

Sensibilització

Conclusions

