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Mining's contribution to national economies – critical raw materials in transition to a low carbon future

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RESOURCE MANAGEMENT WEEK 2021

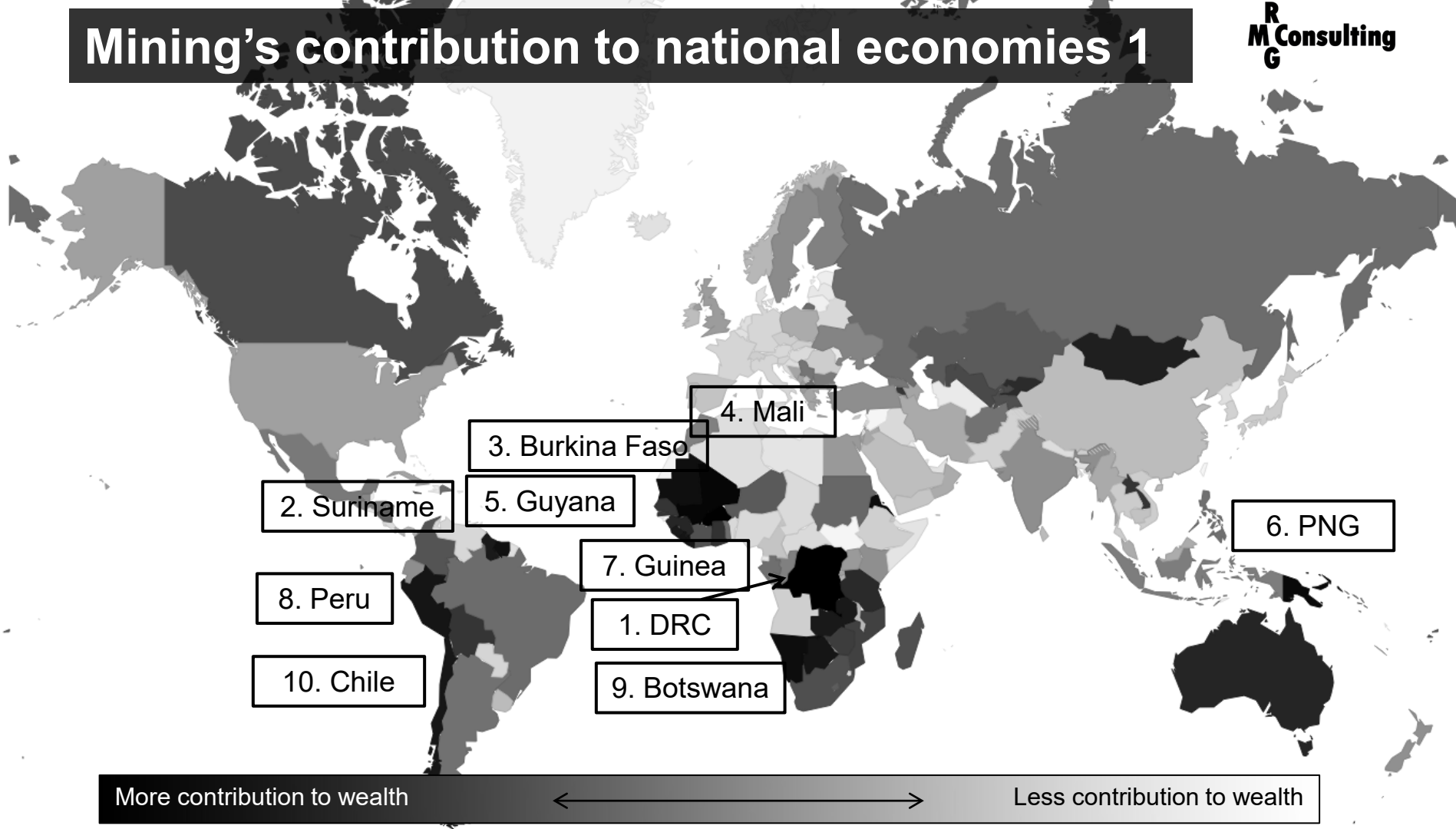
ENABLING SUSTAINABILITY PRINCIPLES IN RESOURCE MANAGEMENT

UNECE

Vanadium drawing: Kaianders Sempler.

Mining's contribution to national economies

Mining's contribution to national economies 1



Mining's contribution to national economies 2

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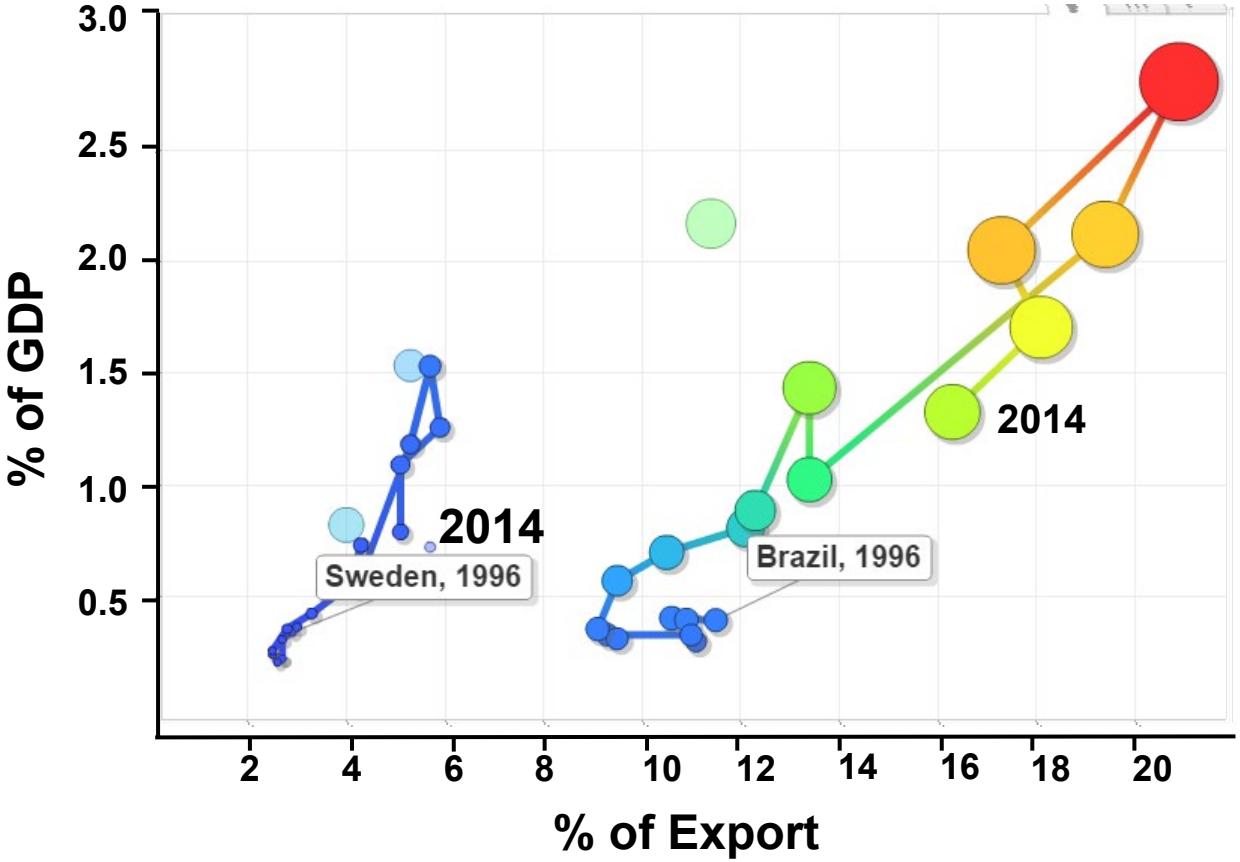

Global mining

REM drawing: Kaianders Sempler.

Global mine production

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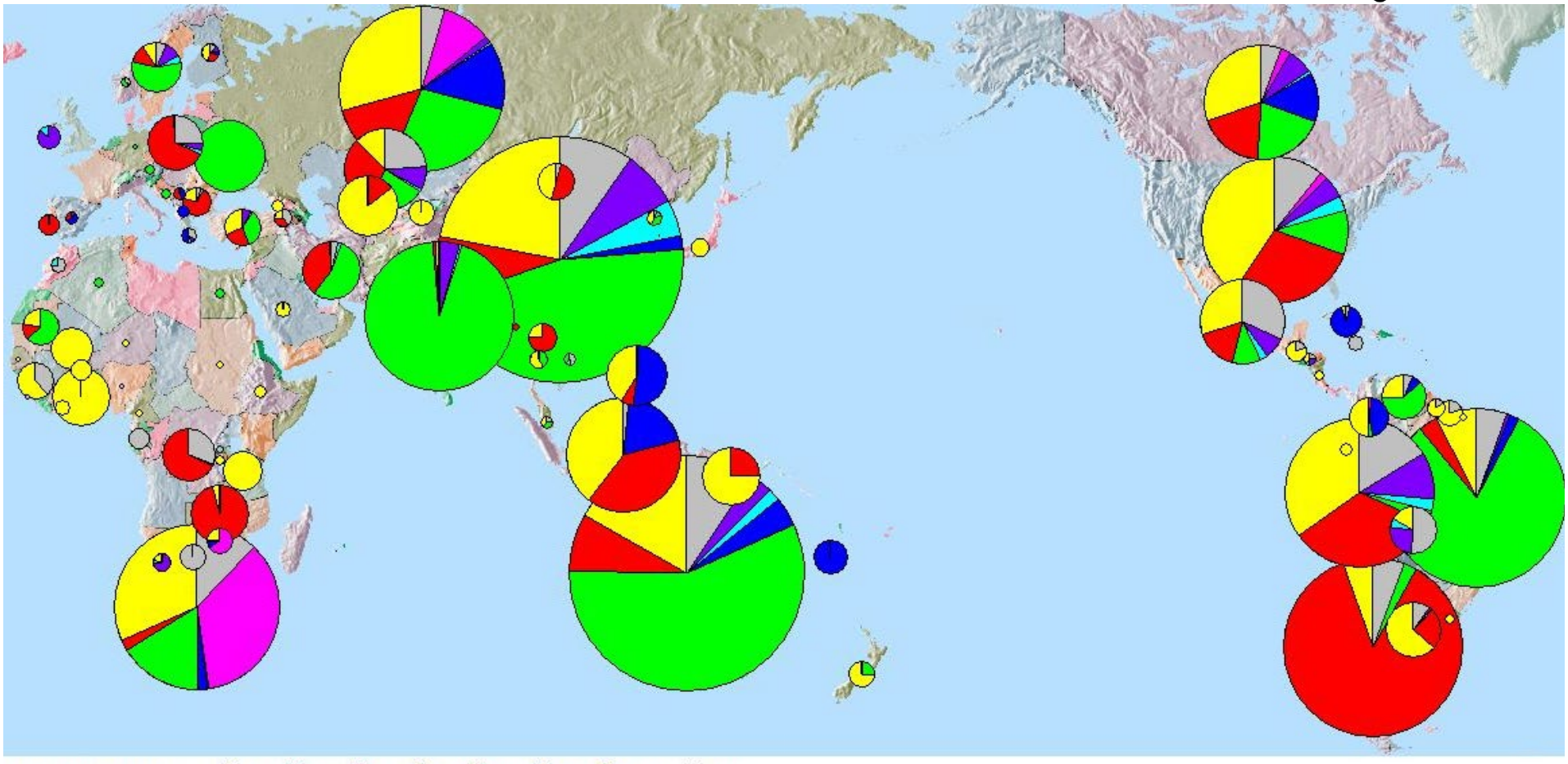
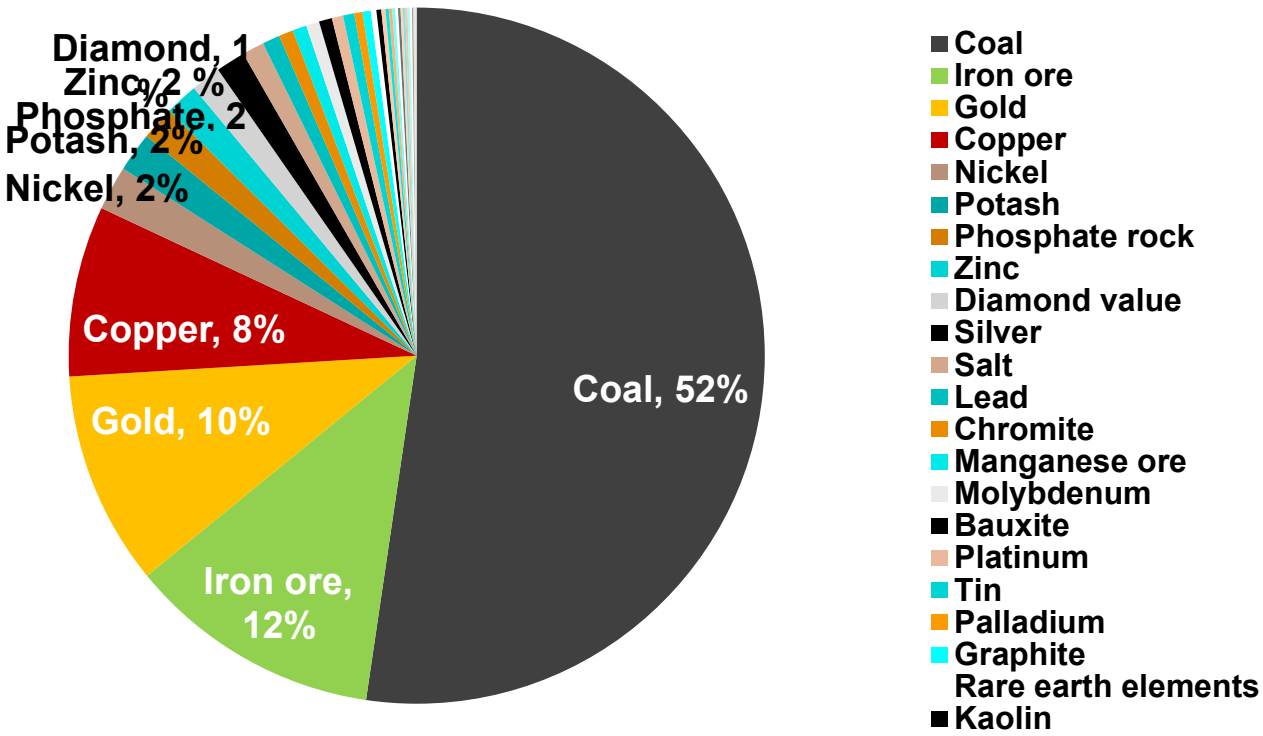


Value at mine stage

Total value 2018 1414 billion USD



Manganese drawing: Kaianders Sempler.

Metals for a low carbon future

Battery metals potential

Kyrgyz Rep. Cu REE

Morocco Co Cu Mn Ni

Philippines Cr Co Cu Ni Pd

Burkina Faso Li Mn

Cote d'Ivoire Mn Ni

Congo DR Co Cu Ta

Tanzania Cu Ni Nb Pt REE

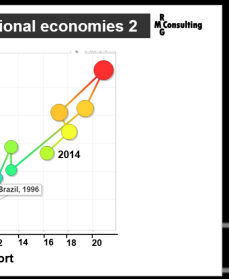
Cu Li

Zambia Co Cu Mn Ni

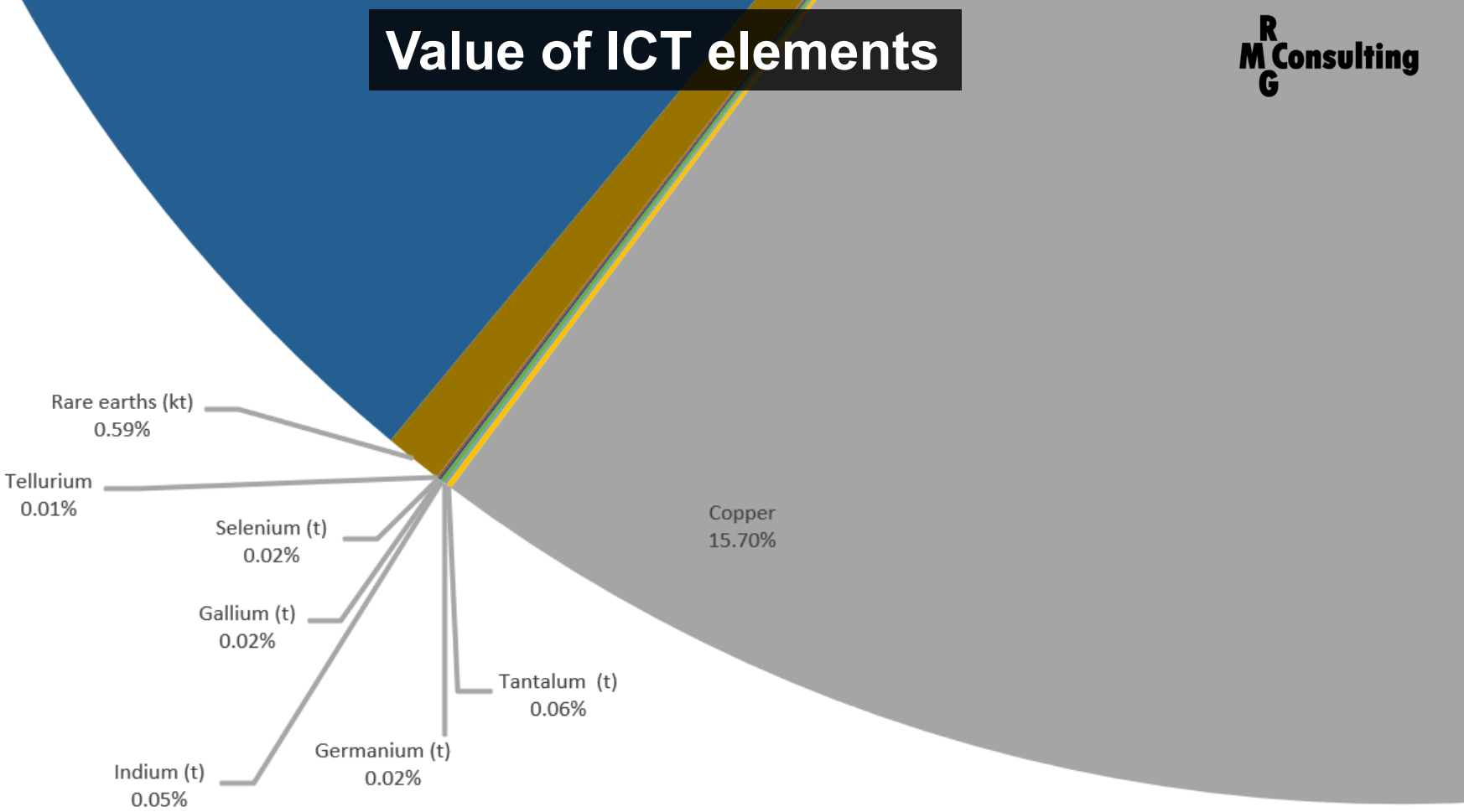
Papua New G. Cr Co Cu Ni

Madagascar Cr Co Cu Gra. Ni REE

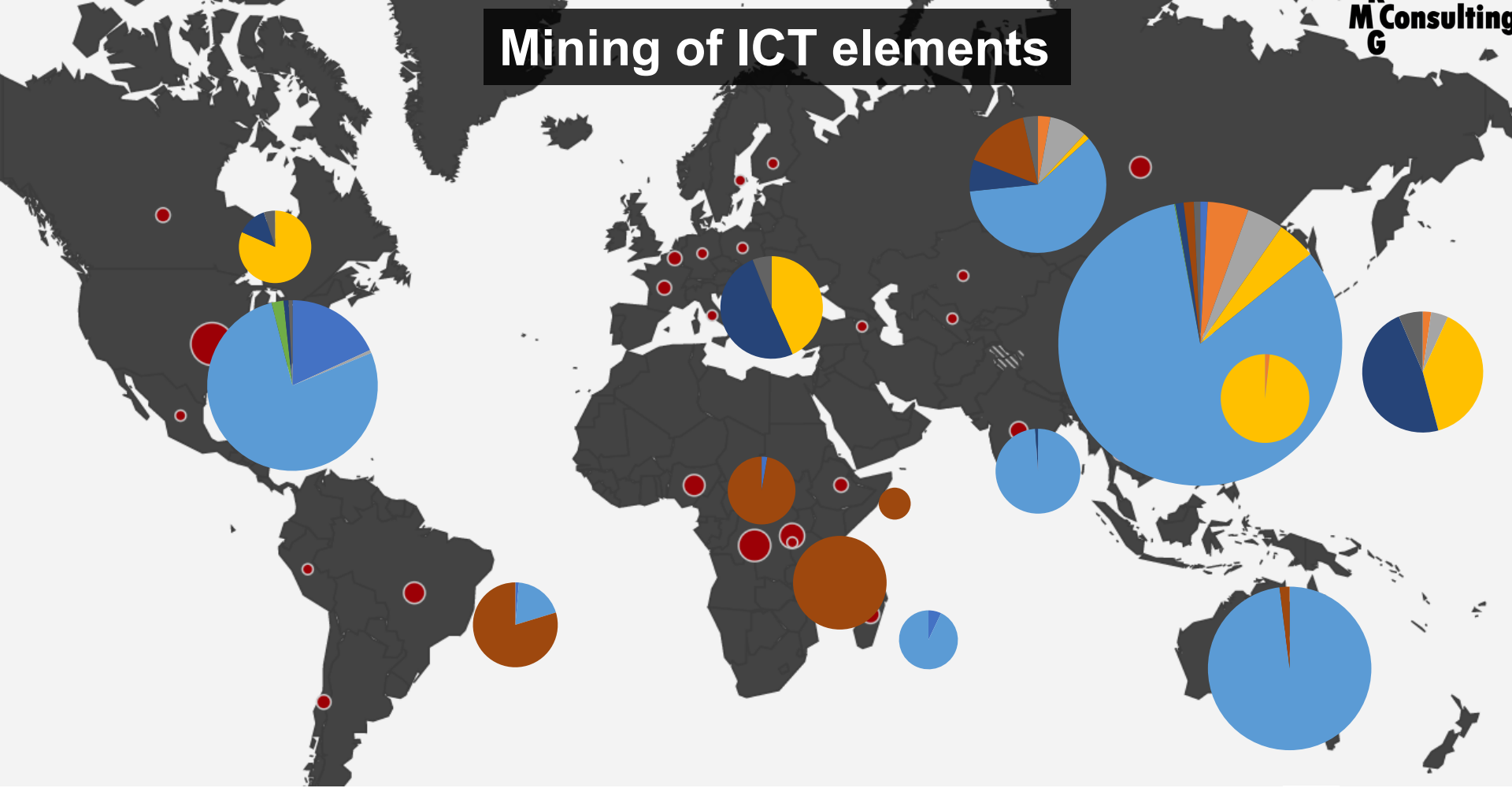
Zimbabwe Cr Cu Gra. Li Ni Pd Pt



Value of ICT elements



Mining of ICT elements



Conclusions

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- Transition to a fossil free future (LCF) is a transition from hydro carbons to metals.
- Demand for copper, cobalt, nickel and other metals for a LCF increase - but also for iron, zinc and other metals.
- Mining already today major contributor for many LIC and LMIC economies – increased role in the future.
- Unique opportunity to benefit from the expected future growth of demand for these metals and minerals for LIC and LMIC.
- Ten countries set to benefit, 8 from Africa and PNG and the Philippines. Among the African countries with the best possibilities are Zimbabwe, the DRC, Tanzania and Zambia.
- ICT elements less important for developing countries – low volumes and values.

Thank you!

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A few of the metals first isolated in Sweden/Finland