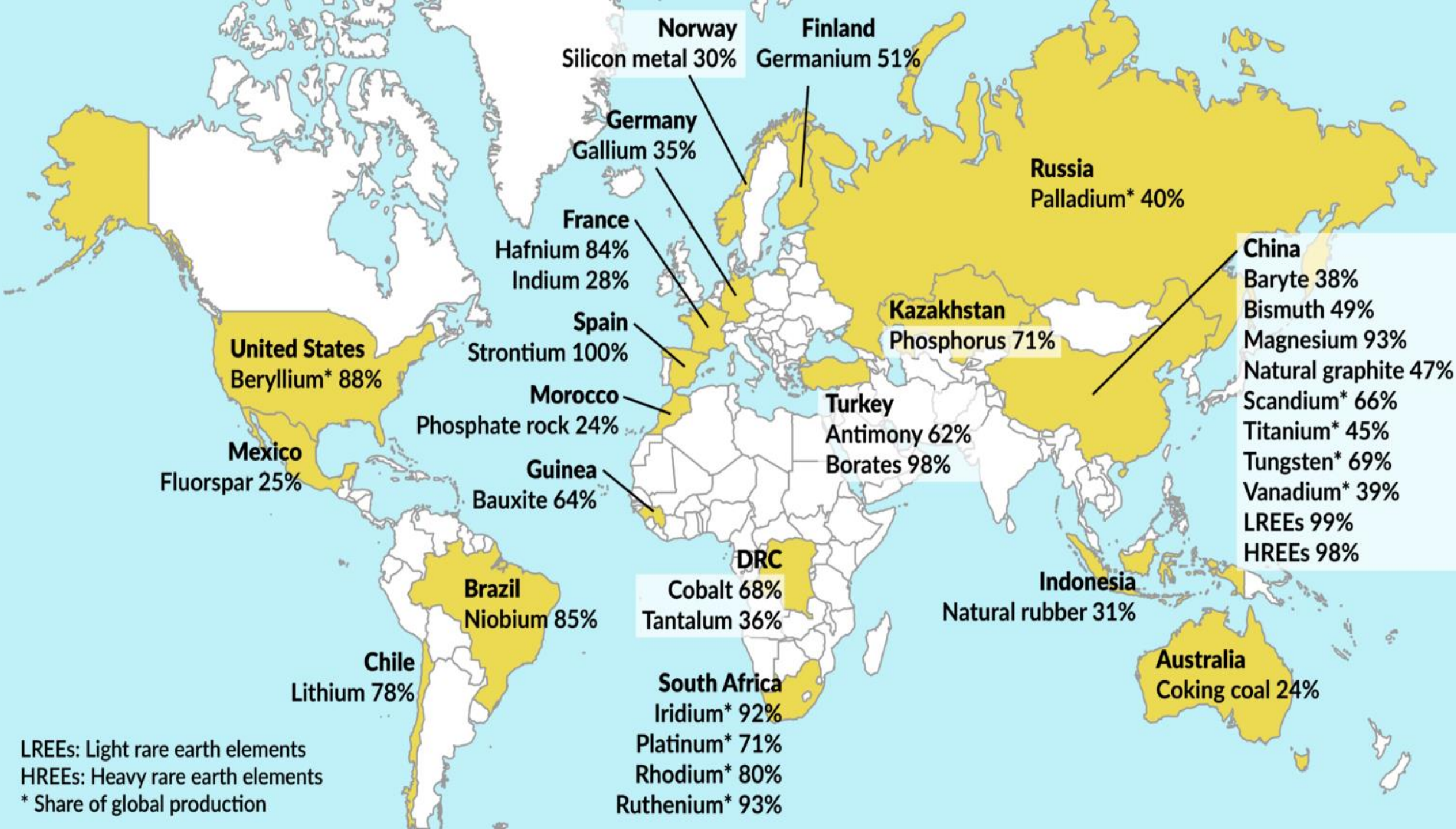
Augsta līmeņa ekspertu konference

“Latvijas ilgtspēja: vide, cilvēks, ekonomika. Kurp ejam?”

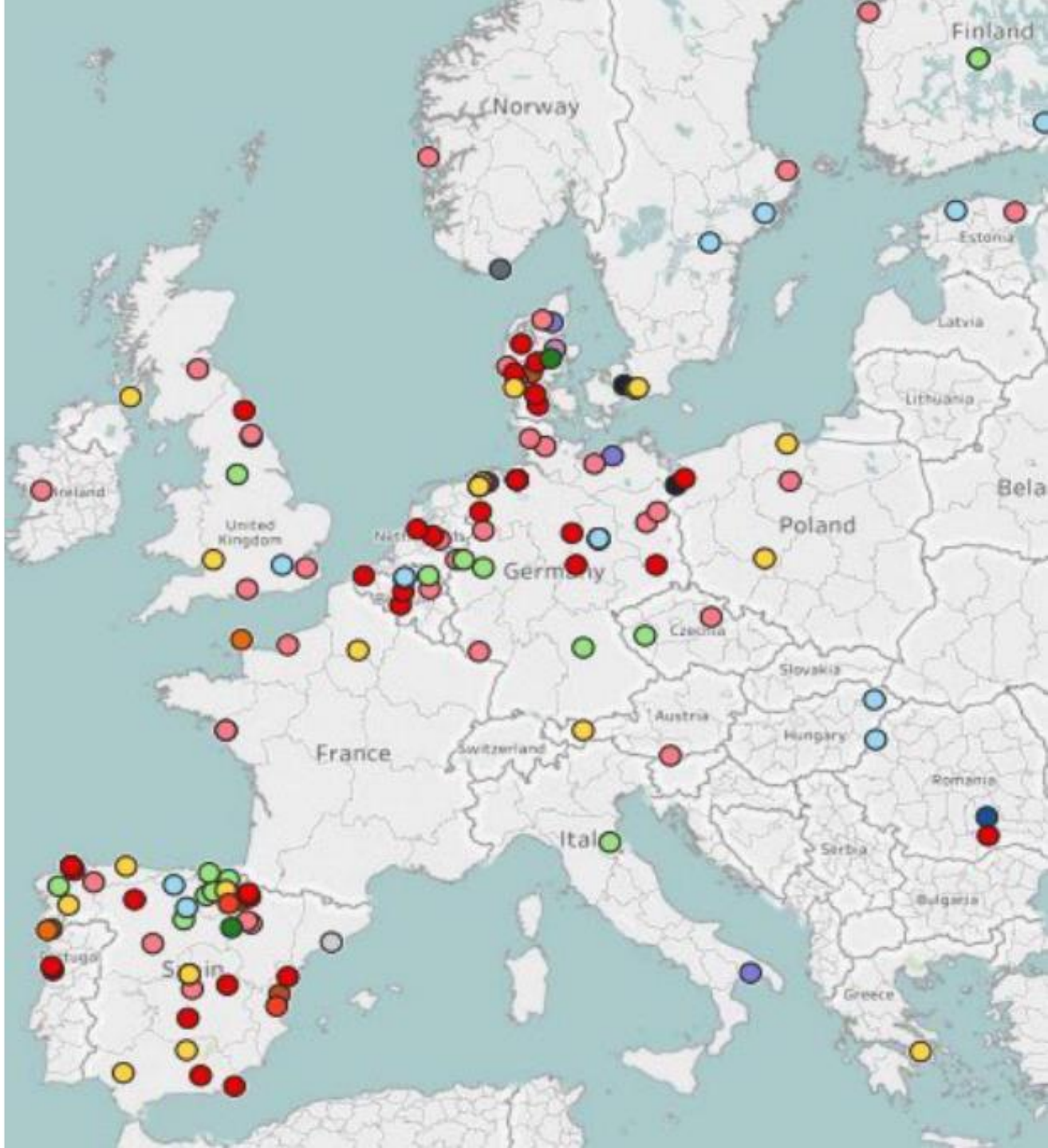
Roberts Zīle, Eiropas Parlamenta viceprezidents

«Eiropas Savienībai 10 gadu laikā jākļūst par konkurētspējīgāko un dinamiskāko uz zināšanām balstīto ekonomiku pasaulē, kas ir spējīga uz ilgtspējīgu ekonomisko kāpumu, vairāk un labākām darba vietām un ciešāku sociālo saliedētību.»

Lisabonas stratēģija, 2000.gads


Norway
Silicon metal 30%
Finland
Germanium 51%
Germany
Gallium 35%
Russia
Palladium* 40%
France
Hafnium 84%
Indium 28%
China
Baryte 38%
Bismuth 49%
Magnesium 93%
Natural graphite 47%
Scandium* 66%
Titanium* 45%
Tungsten* 69%
Vanadium* 39%
LREEs 99%
HREEs 98%
Spain
Strontium 100%
Kazakhstan
Phosphorus 71%
United States
Beryllium* 88%
Morocco
Phosphate rock 24%
Turkey
Antimony 62%
Borates 98%
Mexico
Fluorspar 25%
Guinea
Bauxite 64%
DRC
Cobalt 68%
Tantalum 36%
Brazil
Niobium 85%
Indonesia
Natural rubber 31%
Chile
Lithium 78%
South Africa
Iridium* 92%
Platinum* 71%
Rhodium* 80%
Ruthenium* 93%
Australia
Coking coal 24%
LREEs: Light rare earth elements
HREEs: Heavy rare earth elements
* Share of global production

Manufacturing facilities of wind OEMs in the EU28 according to wind turbine component produced



WIND TURBINE COMPONENTS

- Generators
- Power converters
- Control systems
- Towers
- Gearboxes
- Blades
- Nacelle Assembly
- Hubs & Shafts
- Bearings
- Foundations
- Foundry
- Blades & Generators
- Blades & Towers
- Blades & Nacelle Assembly
- Generators & Nacelle Assembly
- Hubs & Shafts & Nacelle Assembly
- Spare Parts & Repair
- Spare Parts & Repair & Nacelle Assembly

List of 10 critical technology areas for the EU's economic security

	Technology Area	Technologies* **The technologies listed for each area are a likely focal point for risk assessment but are not exhaustive*
1.	**ADVANCED SEMICONDUCTORS TECHNOLOGIES**	• Microelectronics, including processors • Photonics (including high energy laser) technologies • High frequency chips • Semiconductor manufacturing equipment at very advanced node sizes
2.	**ARTIFICIAL INTELLIGENCE TECHNOLOGIES**	• High Performance Computing • Cloud and edge computing • Data analytics technologies • Computer vision, language processing, object recognition
3.	**QUANTUM TECHNOLOGIES**	• Quantum computing • Quantum cryptography • Quantum communications • Quantum sensing and radar
4.	**BIOTECHNOLOGIES**	• Techniques of genetic modification • New genomic techniques • Gene-drive • Synthetic biology
5.	**ADVANCED CONNECTIVITY, NAVIGATION AND DIGITAL TECHNOLOGIES**	• Secure digital communications and connectivity, such as RAN & Open RAN (Radio Access Network) and 6G • Cyber security technologies incl. cyber-surveillance, security and intrusion systems, digital forensics • Internet of Things and Virtual Reality • Distributed ledger and digital identity technologies • Guidance, navigation and control technologies, including avionics and marine positioning
6.	**ADVANCED SENSING TECHNOLOGIES**	• Electro-optical, radar, chemical, biological, radiation and distributed sensing • Magnetometers, magnetic gradiometers • Underwater electric field sensors • Gravity meters and gradiometers

7.	**SPACE & PROPULSION TECHNOLOGIES**	• Dedicated space-focused technologies, ranging from component to system level • Space surveillance and Earth observation technologies • Space positioning, navigation and timing (PNT) • Secure communications including Low Earth Orbit (LEO) connectivity • Propulsion technologies, including hypersonics and components for military use
8.	**ENERGY TECHNOLOGIES**	• Nuclear fusion technologies, reactors and power generation, radiological conversion/enrichment/recycling technologies • Hydrogen and new fuels • Net-zero technologies, including photovoltaics • Smart grids and energy storage, batteries
9.	**ROBOTICS AND AUTONOMOUS SYSTEMS**	• Drones and vehicles (air, land, surface and underwater) • Robots and robot-controlled precision systems • Exoskeletons • AI-enabled systems
10.	**ADVANCED MATERIALS, MANUFACTURING AND RECYCLING TECHNOLOGIES**	• Technologies for nanomaterials, smart materials, advanced ceramic materials, stealth materials, safe and sustainable by design materials • Additive manufacturing, including in the field • Digital controlled micro-precision manufacturing and small-scale laser machining/welding • Technologies for extraction, processing and recycling of critical raw materials (including hydrometallurgical extraction, bioleaching, nanotechnology-based filtration, electrochemical processing and black mass)