EUMICON

A Common Vision

A common industrial vision as the cornerstone of a prosperous future for Europe

EUMICON
EUROPEAN MINERAL RESOURCES CONFEDERATION

ABOUT EUMICON

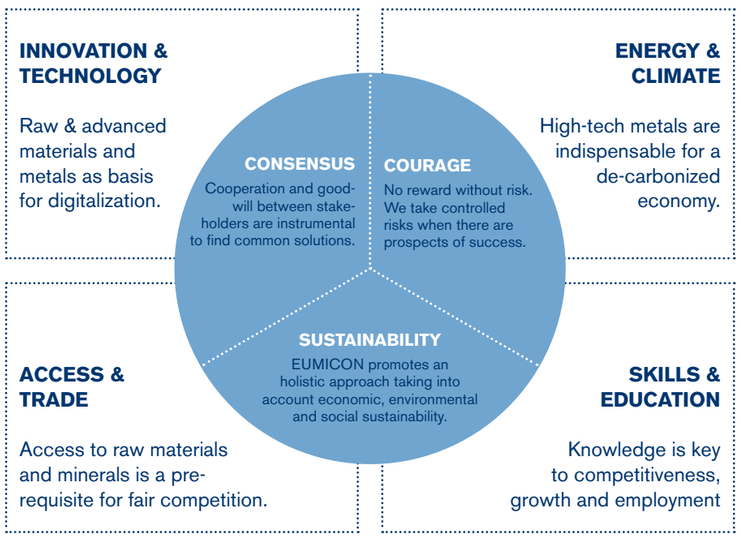
EUMICON is a platform for strategic discussion processes. The platform links stakeholdergroups from public institutions, the industry along the value chain from mineral resources, metals and advanced materials, NGO's, Trade Unions as well as R&D.

In 2018, EUMICON initiated a Europe-wide stakeholder dialogue to identify the primary challenges and opportunities for the raw materials industry and its value chains. Out of 115 ideas and solutions collected as insights from high-level stakeholder workshops, the most promising were distilled to form the basis. The result is a manifesto of 25 future-proof ideas to keep up- and down-stream production in Europe along the entire value creation chain: The EUMICON Raw Materials Charter.

In order to face the tremendous challenges of our times, Europe must redefine its core values and embrace a change of mindset. The stakeholder process identified the values of "courage", "consensus" and "sustainability" as the foundation on which a new future – 'Made in Europe' – can be built.

Furthermore, four technical clusters were identified that significantly change and influence the future of not only the mineral raw material industries but the entire European industrial value chain. In the course of creating the EUMICON: A common Vision, we took the Charter as a basis for further dialogue with relevant stakeholders across the sectors and developed it even further. This set of positions contains a wide range of policy recommendations, like e.g the introduction of specific policy key performance indicators in order to monitor the implementation of policies and their impact on sustainability and efficiency from a holistic perspective; or the establishment of an ambitious research, development and innovation (RD&I) programme that addresses the main challenges facing the shift towards competitive, low-CO_2 processes in energy-intensive industries.

We consider the multitude of current challenges that affect the European industrial location as a unique opportunity to create a new mindset of ensuring prosperity and societal progress. As a proactive representative of the advanced materials and mineral value chain, we firmly believe in promoting and symbolising the harnessing of European excellence, thereby effectively contributing to the incoming Commission President von der Leyen's ambition to "promote the European way of life".



EUMICON
A COMMON VISION

A COMMON INDUSTRIAL VISION AS THE CORNERSTONE OF A PROSPEROUS FUTURE FOR EUROPE

Autonomous vehicles, artificial intelligence, the internet of things – the disruptive technological revolution is giving rise to a whole range of new processes, products and innovative services. All of these are having a significant impact on upstream and downstream industries and their value chains, and as a result industry as a whole needs to react and respond to new challenges in unison. At the same time, such challenges are opening up unforeseen opportunities and potential new value chains.

Megatrends changing the industrial landscape
Megatrends such as digitalisation and the decarbonisation of transport and production, the production of green electricity and the growing demand for batterie are bringing about new demand for resources, in terms of both volume and complexity. Urbanisation, the low-carbon transition and the switch to electricity as the main energy source for industry are further accelerating developments.

Raw and green
Raw and green megatrends have already begun to affect and even transform upstream and downstream value chains, especially with the advent of industry 4.0 in manufacturing and industrial markets (including mining 4.0), and the emergence of a new, young consumer society. The EU's 2050 decarbonisation goals require breakthrough innovation to bring about low-carbon industrial production, and this is pushing European manufacturers to go beyond their current high standards. A key challenge is energy consumption and meeting the demand for decarbonised electricity.

Circular economy also transforming value chains
At the same time, concepts such as product stewardship and the circular economy are also transforming the entire industrial value chain. The circular economy approach has the potential to deliver innovative solutions. It aims to ensure that industrial content that is already present in society and industry – in buildings, infrastructure and products – is preserved rather than discarded or allowed to dissipate at the end of its useful life.

New solutions needed
As a representative of the mineral raw material value chain, EUMICON understands that we can only overcome these challenges together by integrating the entire industrial value chain, from upstream to downstream. For this reason, EUMICON used our recent charter, entitled "25 Ideas for a Future Made in Europe", as the basis for new, more targeted proposals and created a common vision with the support of relevant stakeholders along the industrial value chain.

Our joint proposals should help the European Institutions to better understand our needs in the new legislative period. We want to play a part in setting the agenda for the years to come, in order to further strengthen European value creation and jobs based on advanced material industry.

Against this background, we have identified four thematic clusters as the foundations on which a future industrial Europe can be built.

ENERGY & CLIMATE + ACCESS & TRADE

Integrating Europe's decarbonisation targets while boosting the competitiveness of European industry poses a major challenge for policymakers and industry alike. The energy sector needs to achieve an energy transition in the coming years, producing lower carbon emissions by means of increased use of green energy resources, as well as supplying greater volumes of power. Without appropriate measures, there is no doubt that compliance with climate change policy will affect energy generation costs and prices. To preserve the competitiveness of many industrial sectors, a truly global agreement needs to be reached, under which competing industries are subject to equivalent carbon constraints.

I. A new Green Deal – also including industrial competitiveness

The Green New Deal announced by the EU should help European industry to continue its transition to a low-carbon economy. Accordingly, a combination of key solutions will make a substantial contribution to avoiding carbon leakage and at the same time help industry to remain competitive, innovative and pivotal in enabling the low-carbon transition. A coherent EU regulatory framework – encompassing climate, energy, industrial, trade and environmental policies – is a prerequisite to ensure a level global playing field and to support industry in its transition to a low-carbon economy, while also safeguarding competitiveness.

» Policy KPIs: holistic sustainability and efficiency across the board
A new way to monitor performance is to introduce specific key performance indicators (KPIs) that monitor the implementation of policies and their impact on sustainability from a holistic perspective. The KPI methodology should also comprise ex ante use-of-potential analysis, as well as an indicator for the impact on a global competitiveness index. A commitment to holistic sustainability and efficiency (in energy and raw material consumption) by all stakeholders is essential.

» Push for a global harmonized ETS mechanism
The European Emission Trading System has been successfully implemented in the EU. Since climate change and the transition to a low-carbon economy should be a global priority, the time is right to push for a globally harmonised ETS – and thus create a truly level playing field. As long as a global carbon market price does not exist, European industry needs effective carbon leakage measures.

» Active investment and funding strategy
An ambitious research, development and innovation (RD&I) programme that addresses the main challenges facing the shift towards competitive, low-CO_2 processes in energy-intensive industries is required in the next multiannual financial framework (MFF; from 2021-2027). Adequate support for demonstrations of advanced, low-CO_2 technologies in order to improve market readiness is also necessary, in order to deploy innovations and technologies that will help to cut CO_2 emissions.

II. Supportive regulatory framework and infrastructure

A sustainable approach must consider a range of potential ways to reduce carbon dioxide emissions across different policy areas. A regulatory framework that brings about reliable electricity, gas and hydrogen supply at competitive costs for the European industrial value chain would further contribute to an energy-neutral approach and thereby reduce carbon leakage.

» Regulation that supports business and stimulates innovation and investment
The EU should create a supportive regulatory framework for the entire European value chain in order to deploy groundbreaking technologies and new production methods. Here, the EU needs to shift from big regulation to smart regulation which includes financial incentives that help companies to adapt industrial facilities and production processes – as far as technically possible and economically feasible – to the new challenges and thereby stimulate innovation. In addition, full transparency must be inherent in any regulatory framework.

» Support for the energy transition phase and enabling affordable, low-CO_2 energy
The EU should create regulatory conditions that result in dependable supplies of electricity, gas and hydrogen to the entire European industry value chain at competitive and affordable prices. Availability and significant supplies of low-CO_2 or CO_2-neutral energy vectors at affordable costs are a vital precondition for the successful transformation of all energy-intensive industries.

» Harmonisation of end-of-waste criteria
Ensuring sustainable access to raw materials partly depends on how successful the EU is in establishing a properly functioning circular economy. The transition towards a circular economy will only make headway if we adopt common approaches to recycling and waste management. Currently, individual countries apply different interpretations of the provisions of European legislation, e.g. end-of-waste (EoW) criteria. Harmonised interpretation of EoW criteria among member states as early as possible would create better conditions for facilitating the circular economy.

III. Establishing access to primary and secondary raw materials, as well as fair, free and sustainable trade conditions

Europe's entire industrial value chain is innovative, a leading employer and a major contributor to Europe's COP21 goals. The aim is to strive for a thoroughly sustainable global economy, fully supporting the Paris Agreement by meeting all necessary sustainability criteria and delivering on the UN Sustainable Development Goals (SDG's). To preserve the competitiveness of the entire industrial value chain, it is crucial to establish fair, free and sustainable trade conditions, as well as a market and production environment that strengthens Europe as an international business location.

» Long-term access to primary and secondary raw materials
Europe must take action in order to boost overall raw material supplies and sustainability. By securing long-term access to Europe's own geological deposits, European industry will be more resilient, as this will alleviate the continent's relative dependency on imports from third countries. Nevertheless, due to rising demand for mineral raw materials – with a view to building a green, digitalised future – support for the principle of fair access to raw materials on the world market is essential. In addition, the use of European primary and secondary raw materials will enhance product sustainability.

» Pushing for a level playing field with non-EU competitors
Europe's manufacturing industries are facing challenges at the global level, for instance due to global overcapacities and targeted dumping from several regions. Meanwhile, rising climate-policy compliance costs are having significant effects on the entire industrial value chain. We urge the EU to make further efforts on the international stage in order to protect our industries while also stoking competition. For this reason, adopting proportionate measures on European level should be a priority for the EU in order to be able for EU companies to compete on a global level.

» Necessity for structural WTO reform and strengthening EU mechanisms, that protect against unfair trade
The World Trade Organization and its dispute settlement mechanism need to undergo structural reform. This will facilitate steps aimed at countering distortive unilateral measures and thereby help to protect the multilateral trade system. From a European perspective, we need to strengthen our trade mechanisms, including the EU enforcement mechanism, in order to combat sanctions imposed by third countries. Ultimately, this will position the EU as a strong international trading partner.

ENERGY & CLIMATE

Policy KPIs strategy: holistic sustainability and efficiency across the board

Push for a global harmonized ETS mechanism

A NEW GREEN DEAL – INCLUDING INDUSTRIAL COMPETITIVENESS

Active investment and funding strategy

I.

Regulatory framework that supports “Made in Europe”

SUPPORTIVE REGULATORY FRAMEWORK

II.

Support for energy transition phase and enabling energy neutrality

Regulation that supports business and stimulates innovation and investment

III.

Globally Binding obligations for the Paris Agreement

ESTABLISHING FREE, FAIR & SUSTAINABLE TRADE CONDITIONS

Long Term Access to Primary and Secondary Raw Materials

Necessity for structural WTO reform and strengthening EU trade mechanisms, that protect against unfair trade

ACCESS & TRADE

A COMMON VISION FOR OUR FUTURE

INNOVATION & TECHNOLOGY

INVESTMENT SECURITY BASED ON TECHNOLOGICAL NEUTRALITY

Political framework enhancing long-term investments for key enabling technologies

IV.

Establishing long-term partnerships

Secure Europe’s seat amongst the frontrunners of the technological revolution

Forging alliances between industry, research & development

V.

A strong Horizon Programme for mineral based raw and advanced materials

A SUNRISE INDUSTRY AS THE CORNERSTONE FOR THE TRANSFORMATION OF THE EUROPEAN ECONOMY

Advanced Materials as the fundament for the digitalisation and low carbon energy supply

VI.

EDUCATION FOR THE INDUSTRY OF TOMORROW

Strengthening partnerships between society, public authorities, universities, research organizations and industry

Transforming education & training:
A holistic skill set beats rigid education

The right framework for continuous reskilling

SKILLS & EDUCATION

TECHNOLOGICAL TRANSFORMATION + SKILLS & EDUCATION

The start of the EU's new multiannual financial framework (MFF; from 2021-2027) opens a window of opportunity to provide funding for breakthrough technologies, which will provide fertile ground for disruptive innovation. As the digital revolution affects all stages and processes in the industrial value chain, it will also have transformational effects on industry's modes of operation and on technical standards. This will ultimately require new approaches to education and training. Employment and employability will depend upon the development of new skill sets.

IV. Investment security based on technological neutrality

Europe needs to foster technology neutrality by conducting RD&I not only in one promising key enabling technology, but in several. Ultimately, this diversification of supply will make Europe a forerunner in technological innovation. However, such long-term investments require regulatory certainty regarding technology neutrality.

» Political framework enhancing long-term investments for key enabling technologies
To position Europe as fertile soil for innovation – especially in key enabling technologies – it is crucial to reduce the risks associated with business investment and financing. At the end of the day, the best available technology should come to market and compete against others. This will give the right incentives to investors and encourage private stakeholders to invest in Europe rather than abroad.

» Secure Europe's seat amongst the frontrunners of the technological revolution
A financially strong Horizon Europe program might ensure that the European market and industry generate significant numbers of jobs, and thus contribute to Europe's growth. The programme will need an adequate budget in line with its ambitions. Further research into advanced materials will pave the way for new functionalities and improved properties, while also adding value to existing products and processes, as part of a sustainable approach. Furthermore, an adapted framework will also make a significant contribution to the development of low-CO_2 technologies and make those technologies fit for market.

» Establishing long-term partnerships
We should aim to build long-term, trust-based partnerships between a wide variety of European RD&I actors, which would be indispensable in strengthening Europe's RD&I ecosystems and industrial value chains. This would ensure industry uptake of innovative technologies and scaling up to create new solutions, products and services. It would also improve people's well-being and quality of life and increase European competitiveness.

V. A sunrise industry as the cornerstone for the transformation of the European economy

5G internet, robotisation of jobs, Industry 4.0. etc.: these new, innovative ways of optimising business performance have an outstanding potential for job creation. The European Union, in cooperation with European industry, should redefine and reflect on the success of recent decades. A success story of Europe's most important strategic value chains in the context of green and digital change, which could secure Europe's competitiveness in the future should help to further strengthen industry's attractiveness.

» Strengthening partnerships between society, public authorities, universities, research organisations and industry
In our society, a wide variety of institutions and organisations generate knowledge in different areas and at different levels. While it is important to keep this broad spectrum and simultaneous focus, Europe needs to concentrate on strengthening partnerships between the various stakeholders. As a consequence, Europe will not only gain comprehensive expert knowledge in critical areas, it will also benefit from synergy effects.

» New approaches to fostering continuous exchange between industry and education
Spending a mandatory year in industry could become part of standard training for teachers and lecturers of technical subjects; this would also make it easier for industry professionals to move into education (e.g. with a shortened period of training). In addition, higher education should include mandatory industry experience in order to strengthen mutual understanding. This would lead to an understanding of the respective requirements and to development of a suitable framework for training prospective skilled workers more effectively and quickly.

» Forging alliances in education, research and development
On the global stage, European industry stands out for its high level of expertise and skilled workforce. Nevertheless, other players are eager to close the gap. It is therefore extremely important that the EU picks up pace and continues striving for excellence. The only way to achieve this goal is by forging alliances in education, research and development.

VI. Education for tomorrow's industry

Being equipped with the right skills is vital to competitiveness, growth and employment. As the digital revolution affects all stages and processes in the industrial value chain, it will also have transformational effects on industry's modes of operation and on technical standards. This will ultimately require new skill sets, as well as new approaches to education and training.

» Holistic skill set beats rigid education
The skills shortage attributable to the current fourth industrial revolution is one of the great challenges currently facing European industry. To overcome this challenge, we need a workforce with a holistic set of skills. Our workers need to be educated and trained, especially in the STEM subjects (science, technology, engineering and mathematics), so that our industry can continue to excel in providing high-quality, breakthrough innovation. It is essential that we go beyond rigid education and start teaching targeted skills as early as secondary school level. This will enable us to develop the workforce in line with Europe's needs and counter the challenge posed by the skills shortage.

» The right framework for continuous reskilling
No matter how well-skilled our workforce is, against the backdrop of advances in digitalisation and increasing technological progress we need to ensure continuous skills development. Adapting to new circumstances by means of reskilling and upskilling will enable workers to perform the jobs of the future. Embedding this in a lifelong learning cycle – from employees at the very beginning of their professional life to those due to retire in the next five to ten years – will be the key to enabling European industry to prosper.

» Transforming education and training
We not only need to change WHAT we educate our workforce in, we also need to transform HOW we educate them. Tomorrow's education and training must be based on a broad mix of methods including online tutorials, project work, various academic approaches, entrepreneurial thinking (e.g. company simulations), game-based learning, experiments, excursions and personal reflection. Digital tools, from online materials to massive open online courses (MOOCs), must be included in all curricula. In addition, we need to move away from mass education and focus instead on personalised, individual training.

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