

## KN2023/02645 Ragn-Sells Remissyttrande av EU-kommissionens förslag till förordning om kritiska och strategiska råmaterial- European Critical Raw Materials Act

*Ragn-Sells är ett av Sveriges främsta kompetensföretag inom återvinning och miljö. Vi är en del av Ragn-Sellskoncernen och finns även i Norge, Danmark och Estland. Vi erbjuder nyskapande och effektiva lösningar för att minimera, ta hand om och omvandla avfall till resurser.*

Ragn-Sells har fått möjlighet att lämna synpunkter på EU-kommissionens förslag till förordning om kritiska och strategiska råmaterial, European Critical Raw Materials Act.

**Ragn-Sells vill understryka att EU-kommissionens förslag till förordning om kritiska och strategiska råmaterial är oerhört viktig. I stort sett är förslagen bra och innehåller många relevanta och viktiga förändringar. Samtidigt försitter kommissionen chansen att bredda ansatsen och tillräckligt problematisera att tillvaratagandet av kritiska råmaterial kräver centrala åtgärder där linjära materialflöden måste ersättas med cirkulära. Det är mycket oroväckande att de kritiska råvarorna bara blir fler och fler, inte minst sådana som krävs för den gröna omställningen. Det innebär en enorm risk för Europa. Därför är det bra att EU-kommissionen strävar efter större självförsörjning, EU behöver dock angripa hindren för en ökad användning av återvunna material på en mycket djupare nivå.**

För att Sverige ska förverkliga uppställda miljömål och ambitioner förutsätts en vilja och förmåga i näringsliv, industri och offentlig verksamhet, var för sig och tillsammans, att gå mot ökad hållbarhet och en ökad cirkulär ekonomi. Politiken har i denna omställning en stor roll att spela.

Ett flertal företag har gått före i den cirkulära omställningen genom att investera och uppgradera infrastruktur för att möta framtidens miljö- och hållbarhetskrav – så även Ragn-Sells. Omställningen till en resiliert, resurseffektiv, cirkulär, klimatneutral och biobaserad ekonomi kräver dock att samhällets resursflöden ses i ett systemperspektiv. Synergieffekter måste tas tillvara och fler resurser behöver återvinnas än vad samhället återvinner idag.

Sverige och omvärlden behöver sluta kretsloppen av flertalet kritiska råmaterial, bland annat fosfor. Fosfor är ett viktigt växtnäringsämne och en begränsad resurs. Genom att sluta kretsloppen kan vi bidra till ett mer resiliert lantbruk och en tryggare försörjning av livsmedel och biomaterial samt bidra till ett minskat uttag av jungfruliga ändligen resurser.

Samtidigt är vår omvärld oerhört turbulent. Den under 2022 initierade globala krisen och osäkerheten i försörjning av insatsvaror till jordbruket påverkar i hög grad kostnader för och möjlighet till mineralgödselimport vilket gör det än viktigare att tillåta en öka svensk beredskap och resiliens i frågan om näringsåterföring. Fosfor i den mineralgödsel som används i jordbruket i Sverige och den övriga västvärlden, utvinns ur ett fåtal råfosfatfyndigheter i världen däribland Marocko och Ryssland. Sverige måste därför fortsatt driva ambitionen om en övergång till en cirkulär ekonomi där avfall ses som en resurs.

I dagsläget pågår inte mindre än fyra politiskt tillsatta utredningar och uppdrag för att se över Sveriges fortsatta möjlighet att främja omställningen till en cirkulär ekonomi, öka livsmedelsberedskapen, öka möjligheterna till en ökad gödselproduktion och se över ett minskat beroende i livsmedelskedjan samt att se över kommuners och regioners nuvarande förutsättningar att säkerställa livsmedelsberedskapen.

På EU-nivå pågår, förutom arbetet med rättsakten om kritiska och strategiska råmaterial, revideringen av direktivet om rening av avloppsvatten från tätbebyggelse, som innehåller bestämmelser om återvinning av näringsämnen från avloppsslam. Förhandlingarna om förordningen om avfallstransporter, som bland annat syftar till att underlätta återanvändning och återvinning av avfall, pågår mellan Europaparlamentet och rådet, och fler initiativ på samma tema väntas läggas fram under det kommande året, däribland revideringen av ramdirektivet om avfall och direktivet om avloppsslam.

Politiken har genom detta visat på vikten av att ta tillvara kritiska råvaror och bättre beslut för att stödja tillvaratagandet av högkvalitativa cirkulära råmaterial är därför en central åtgärd.

**Ragn-Sells vill understryka att kritiska råvaror redan finns i vårt avfall. Dagens föråldrade syn på avfall står i vägen för att utvinna kritiska råvaror ur avfallet och därmed säkra Europas självförsörjning. Bara genom att förändra den synen kan vi förse samhället med råvaror utan att skada klimatet.**

Nedan följer ytterligare synpunkter:

#### 1.

EU-kommissionen har presenterat sitt lagstiftningspaket i syfte att säkra tillgången på viktiga råvaror, särskilt sådana som kan bli svåra att få tag på av olika skäl. Listan utökades samtidigt över så kallade kritiska råvaror med sex nya material, till totalt 34 stycken. Sexton av dessa är råvaror som EU nu kallar strategiska, i praktiken metaller och mineral som krävs i digitalisering och elektrifiering samt för försvar och rymdfart. Andra exempel är sällsynta jordartsmetaller, som bland annat används i elektronik, och flera råvaror som är avgörande för batteriteknik. I många fall dominerar Kina världshandeln.

Fosfor och fosfatmineral saknas, vilka listades som kritiska råvaror redan 2017, bland de strategiska råvarorna. Detta innebär att ett avgörande näringsämne för jordbruket går miste om åtgärder som kopplas till de strategiska råvarorna, bland annat snabbspår för tillståndsprocesser och konkreta återvinningsmål. I stället riskerar EU:s totala beroende av att importera fosfor från Ryssland och Marocko att bestå. Dessutom går EU miste om den fosfor som bokstavligen finns under våra fötter, i våra avlopp.

Ragn-Sells anser att det är tydligt att bristen på fosfor efter Rysslands angrepp på Ukraina

redan lett till matbrist i många länder och skyhöga matpriser i Europa. Att peka ut fosfor som kritisk råvara, men inte strategisk, blir absurt när EU måste göra allt för att trygga sin egen matproduktion.

## 2.

Förordningen menar att 15 procent av EU:s behov av de så kallade strategiska råvarorna ska komma från återvinning 2030. Samtidigt ligger betydligt större fokus på att utöka kapaciteten för jungfrulig utvinning, och den betydligt bredare listan av *kritiska* råvaror omfattas inte av återvinningsmålet. Lagtexten talar om att hinder för ökad cirkulering av råvaror behöver adresseras, men utan att peka ut dem.

Ragn-Sells anser att det är bra att EU vill underlätta uppbyggnaden av återvinning av de strategiska råvarorna, men även de så kallade kritiska råvarorna har vi gott om i avfallet. Det bör vara självklart att återvinningen av alla viktiga råvaror som tas upp i förslaget ska stärkas så mycket som möjligt.

## 3.

Utvinning och hantering av råvaror står [enligt FN](#) bakom hälften av världens klimatutsläpp, 90 procent av vattenbristen och 90 procent av hotet mot biologisk mångfald. Bara dagar efter lagförslaget presenterade FN:s klimatpanel IPCC [sin mest utförliga sammanställning hittills](#) av vad vetenskapen säger om klimatförändringarna och betonade att det är mycket bråttom att kapa utsläpp.

Ragn-Sells anser att det är olyckligt att fokus ligger på att lösa Europas råvarubehov genom ny brytning samtidigt som vi offerar klimatet. Bara genom en helt ny syn på avfall, där avfallet fullt ut ses som en källa till hållbara råvaror, kan vi tackla båda problemen samtidigt.

Ragn-Sells välkomnar samtidigt att kommissionen öppnar för att medlemsländerna kan använda incitamentsystem för att öka återcirkuleringen av kritiska råmaterial, och inte minst att ländernas ansvar som stora upphandlare nämns.

Ragn-Sells anser det dock problematiskt att samtidigt som kommissionen vill att hinder för att utvinna råvaror ur gruvavfall ska undanröjas, så uppmärksammas inte de stora svårigheter som dagens lagstiftning innebär för all annan återvinning.

**BILAGA 1:**

Ragn-Sells lämnar enligt nedan förslag till omformuleringar.

**CRM amendments**

**Recital 1**

The Commission	Ragn-Sells
<p>Access to raw materials is essential for the Union economy and the functioning of the internal market. There is a set of non-energy, non-agricultural raw materials that, due to their high economic importance and their exposure to high supply risk, often caused by a high concentration of supply from a few third countries, are considered critical. Given the key role of many such critical raw materials in realising the green and digital transitions, and in light of their use for defence and space applications, demand will increase exponentially in the coming decades. At the same time, the risk of supply disruptions is increasing against the background of rising geopolitical tensions and resource competition. Furthermore, if not managed properly, increased demand for critical raw materials could lead to negative environmental and social impacts. Considering these trends, it is necessary to take measures to ensure access to a secure and sustainable supply of critical raw materials to safeguard the Union's economic resilience and open strategic autonomy.</p>	<p>Access to raw materials is essential for the Union economy and the functioning of the internal market. There is a set of non-energy, non-agricultural raw materials that, due to their high economic importance and their exposure to high supply risk, often caused by a high concentration of supply from a few third countries, are considered critical. <b><i>Some raw materials with high supply are critical for agricultural production and so food security.</i></b> Given the key role of many such critical raw materials in realising the green and digital transitions, and in light of their use for defence and space applications, demand will increase exponentially in the coming decades. At the same time, the risk of supply disruptions is increasing against the background of rising geopolitical tensions and resource competition. Furthermore, if not managed properly, increased demand for critical raw materials could lead to negative environmental and social impacts. Considering these trends, it is necessary to take measures to ensure access to a secure and sustainable supply of critical raw materials to safeguard the Union's economic resilience and open strategic autonomy.</p>

**Recital 4**

The Commission	Ragn-Sells
<p>In order to ensure that the measures set out in the Regulation focus on the most relevant materials, a list of strategic raw materials and a list of critical raw materials should be established. Those lists should also serve to guide and coordinate Member States' efforts to contribute to the realisation of the aims of this Regulation. The list of strategic raw materials</p>	<p>In order to ensure that the measures set out in the Regulation focus on the most relevant materials, a list of strategic raw materials and a list of critical raw materials should be established. Those lists should also serve to guide and coordinate Member States' efforts to contribute to the realisation of the aims of this Regulation. The list of strategic raw materials should contain raw materials that are of high</p>

<p>should contain raw materials that are of high strategic importance, taking into account their use in strategic technologies underpinning the green and digital transitions or for defence or space applications, that are characterised by a potentially significant gap between global supply and projected demand, and for which an increase in production is relatively difficult, for instance due to long lead-times for new projects increasing supply capacity. To take account of possible technological and economic changes, the list of strategic materials should be periodically reviewed and, if necessary, updated. In order to ensure that efforts to increase the Union capacities along the value chain, reinforce the Union’s capacity to monitor and mitigate supply risks and increase diversification of supply are focused on the materials for which they are most needed, the relevant measures should only apply to the list of strategic raw materials.</p>	<p>strategic importance, taking into account their use in strategic technologies underpinning the green and digital transitions or for defence or space applications, that are characterised by a potentially significant gap between global supply and projected demand, and for which an increase in production is relatively difficult, for instance due to long lead-times for new projects increasing supply capacity. To take account of possible technological and economic changes, <b>as well as agricultural needs to ensure food security</b>, the list of strategic materials should be periodically reviewed and, if necessary, updated. In order to ensure that efforts to increase the Union capacities along the value chain, reinforce the Union’s capacity to monitor and mitigate supply risks and increase diversification of supply are focused on the materials for which they are most needed, the relevant measures should only apply to the list of strategic raw materials.</p>
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**The Commission has selected 16 critical raw materials and named them "strategic" by creating a new list of "strategic raw materials". The materials on this strategic list mainly cover materials used for technology, such as battery production and aerospace. No materials relate to the Union's food security.**

**Ragn-Sells, therefore, suggests that materials important for the Union's food security should be recognised as "strategic". In this way, the food sector would also be covered by the EU's supply and recycling targets and resilience actions in the same way as for the technological materials currently included in the list. Ragn-Sells proposes that the key plant nutrients Phosphorus, Nitrogen and Potassium should be covered by this regulation. The inclusion of the food sector and raw materials important for the Union's food security will ensure coherence with other EU policies on nutrients, in particular the Green Deal (Farm-to-Fork and Biodiversity Strategies), nutrient loss reduction targets, the Circular Economy, the Integrated Nutrient Management Action Plan, Soil Health, Common Agricultural Policy and on energy policy (for nitrogen fertiliser production).**

**Subject matter and objectives – Article 1 – paragraph 2**

The Commission	Ragn-Sells
1. The general objective of this Regulation is to improve the functioning of the internal market by establishing a framework to ensure the	1. The general objective of this Regulation is to improve the functioning of the internal market by establishing a framework to

<p>Union's access to a secure and sustainable supply of critical raw materials.</p> <p>2. To achieve the general objective referred to in paragraph 1, this Regulation aims to:</p> <p>(a) strengthen the different stages of the strategic raw materials value chain with a view to ensure that, by 2030, Union capacities for each strategic raw material have significantly increased so that, overall, Union capacity approaches or reaches the following benchmarks:</p> <p>(i) Union extraction capacity is able to extract the ores, minerals or concentrates needed to produce at least 10% of the Union's annual consumption of strategic raw materials, to the extent that the Union's reserves allow for this;</p> <p>(ii) Union processing capacity, including for all intermediate processing steps, is able to produce at least 40% of the Union's annual consumption of strategic raw materials;</p> <p>(iii) Union recycling capacity, including for all intermediate recycling steps, is able to produce at least 15% of the Union's annual consumption of strategic raw materials.</p> <p>(b) diversify the Union's imports of strategic raw materials with a view to ensure that, by 2030, the Union's annual consumption of each strategic raw material at any relevant stage of processing can rely on imports from several third countries, none of which provide more than 65% of the Union's annual consumption;</p> <p>(c) improve the Union's ability to monitor and mitigate the supply risk related to critical raw materials; (d) ensure the free movement of critical raw materials and products containing critical raw materials placed on the Union</p>	<p>ensure the Union's access to a secure and sustainable supply of critical raw materials.</p> <p>2. To achieve the general objective referred to in paragraph 1, this Regulation aims to:</p> <p>(a) strengthen the different stages of the strategic raw materials value chain with a view to ensure that, by 2030, Union capacities for each strategic raw material have significantly increased so that, overall, Union capacity approaches or reaches the following benchmarks:</p> <p>(i) Union extraction capacity is able to extract the ores, minerals or concentrates needed to produce at least 10% of the Union's annual consumption of strategic raw materials, to the extent that the Union's reserves allow for this;</p> <p>(ii) Union processing capacity, including for all intermediate processing steps, is able to produce at least 40% of the Union's annual consumption of strategic raw materials;</p> <p><del>(iii) Union recycling capacity, including for all intermediate recycling steps, is able to produce at least 15% of the Union's annual consumption of strategic raw materials.</del></p> <p>(b) diversify the Union's imports of strategic raw materials with a view to ensure that, by 2030, the Union's annual consumption of each strategic raw material at any relevant stage of processing can rely on imports from several third countries, none of which provide more than 65% of the Union's annual consumption;</p> <p><b><i>(c) Union recycling capacity, including for all intermediate recycling steps, is able to produce at least 15% of the Union's annual</i></b></p>
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<p>market while ensuring a high level of environmental protection, by improving their circularity and sustainability.</p> <p>3. Where, based on the report referred to in Article 42, the Commission concludes that the Union is likely not to achieve the objectives set out in paragraph 2, it shall assess the feasibility and proportionality of proposing measures or exercising its powers at Union level in order to ensure the achievement of those objectives.</p> <p>4. The Commission shall take into account the objectives and benchmarks laid down in paragraph 2, point a(iii), as related Union priorities within the meaning of Article 5(4)(a)(i) of Regulation XX/XXXX [OP please insert: the Ecodesign for Sustainable Products Regulation], when preparing ecodesign requirements to improve the following product aspects: durability, reusability, reparability, resource use or resource efficiency, possibility of remanufacturing and recycling, recycled content and possibility of recovery of materials.</p>	<p><b>consumption of <del>strategic</del> critical raw materials.</b></p> <p>(d) improve the Union's ability to monitor and mitigate the supply risk related to critical raw materials;</p> <p>(e) ensure the free movement of critical raw materials and products containing critical raw materials placed on the Union market while ensuring a high level of environmental protection, by improving their circularity and sustainability.</p> <p>3. Where, based on the report referred to in Article 42, the Commission concludes that the Union is likely not to achieve the objectives set out in paragraph 2, it shall assess the feasibility and proportionality of proposing measures or exercising its powers at Union level in order to ensure the achievement of those objectives.</p> <p>4. The Commission shall take into account the objectives and benchmarks laid down in paragraph 2, point a(iii), as related Union priorities within the meaning of Article 5(4)(a)(i) of Regulation XX/XXXX [OP please insert: the Ecodesign for Sustainable Products Regulation], when preparing ecodesign requirements to improve the following product aspects: durability, reusability, reparability, resource use or resource efficiency, possibility of remanufacturing and recycling, recycled content and possibility of recovery of materials.</p>
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***The recovery of raw materials from waste streams is needed if the EU is serious about the green and digital transition as well as reducing its third-party dependency. Ragn-Sells technology could produce 30% of the EU's annual targeted production of magnesium and recover 270 kt Phosphorus annually. By applying a recycling-first approach, new technologies***

**like Ragn-Sells could contribute to minimising the need for new mining of critical raw materials and strengthening the EU’s autonomy.**

**When exploring potential resources from extractive waste, such waste will in many cases consist of a complex mixture of strategic raw materials and critical raw materials. Ragn-Sells foresees that in many cases the economic viability of exploration of such wastes will require extraction of all these strategic and critical raw materials. If the Commission merely includes strategic raw materials in the scope of Article 1 paragraph 2, only projects where strategic raw materials are in focus will be prioritised. Ragn-Sells, therefore, fears that there is a risk that the EU loses out on projects where strategic raw materials are produced as a result of the extraction of critical raw materials. It is for example possible to extract copper (defined as a strategic raw material) from the incinerated sewage sludge ash Ragn-Sells' is using to recover phosphorus (defined as a critical raw material). Therefore, it does not make any sense to, in the regulation, divide between strategic and critical raw materials, and even less to set recycling targets only covering strategic raw materials. Ragn-Sells, therefore, proposes to change paragraph 2.a.iii so that it also covers critical raw materials.**

**Definitions – Article 2 – paragraph 1**

The Commission	Ragn-Sells
<p>For the purposes of this Regulation, the following definitions shall apply:</p> <p>(1) ‘raw material’ means a substance in processed or unprocessed state used as an input for the manufacturing of intermediate or final products, excluding substances predominantly used as food, feed or combustion fuel;</p>	<p>For the purposes of this Regulation, the following definitions shall apply:</p> <p>(1) ‘raw material’ means a substance in processed or unprocessed state used as an input for the manufacturing of intermediate or final products, excluding substances predominantly used as <del>food, feed or</del> combustion fuel;</p>

**Article 2.1, says that ‘raw material’ means a substance in a processed or unprocessed state used as an input for the manufacturing of intermediate or final products, excluding substances predominantly used as food, feed or combustion fuel. Ragn-Sells wants to underline that critical raw material such as phosphorus, an essential element for life and a key nutrient for agriculture, are highly relevant for manufacturing products needed for the green transition and for defence.**

**Food is, from our point of view, an important part of the green transition. The dramatic effect of high and volatile prices for energy and the shortage of fertilisers in the EU as a consequence of the war in Ukraine shows how raw materials can act as powerful weapons. The effect of the**



***lack of phosphor in agriculture does not show as fast as the lack of natural gas – but the effect over a couple of years will be dramatic. Today, the EU is largely (92%) dependent on imports as most mines are located outside Europe (incl. Russia). The limited availability of this scarce resource leads to a large ecological footprint from mining, long transport and health issues from cadmium contamination. In March 2023 the world market price for Rock Phosphate was 345 USD/ton. This is close to the all-time high level last seen before the financial crisis of 2007–2008 (except for the price spike during 2021). Ragn-Sells, therefore, proposes to delete the exclusion of raw materials used for the manufacturing of food and feed from the regulation and urges the co-legislators to regard Phosphate rock and Phosphorus as strategic raw materials. Further Phosphate is also an alternative for batteries using Lithium Iron Phosphate (LFP) as an alternative to conventional Li Ion batteries. By using LFP chemistry the use of Cobalt and Nickel can be avoided.***

#### **List of strategic raw materials – Article 3 – paragraph 3**

<b>The Commission</b>	<b>Ragn-Sells</b>
3. The Commission shall review and, if necessary, update the list of strategic raw materials by [OP please insert: four years after the date of entry into force of this Regulation], and every 4 four years thereafter.	3. The Commission shall review and, if necessary, update the list of strategic raw materials by [OP please insert: <b>two</b> years after the date of entry into force of this Regulation], and every <b>two</b> years thereafter.

***Ragn-Sells find it necessary to assess the need for an update of the list more often than every four years.***

#### **List of critical raw materials – Article 4 – paragraph 4**

<b>The Commission</b>	<b>Ragn-Sells</b>
4. The Commission shall review and, if necessary, update the list of critical raw materials by [OP please insert: four years after the date of entry into force of this Regulation], and every 4 four years thereafter.	4. The Commission shall review and, if necessary, update the list of critical raw materials by [OP please insert: <b>two</b> years after the date of entry into force of this Regulation], and every <b>two</b> years thereafter.

***Ragn-Sells find it necessary to assess the need for an update of the list more often than every four years.***

**Criteria for recognition of Strategic Projects – Article 5 – paragraph 1 – point a**

The Commission	Ragn-Sells
<p>1. Following an application of the project promoter and in accordance with the procedure established in Article 6, the Commission shall recognise as Strategic Projects raw material projects that meet the following criteria:</p> <p>(a) the project would make a meaningful contribution to the security of the Union's supply of strategic raw materials;</p>	<p>1. Following an application of the project promoter and in accordance with the procedure established in Article 6, the Commission shall recognise as Strategic Projects raw material projects that meet the following criteria:</p> <p>(a) the project would make a meaningful contribution to the security of the Union's supply of <del>strategic</del> <b>critical</b> raw materials;</p>

*The EU needs to be more self-sufficient in raw materials and the processing capacity of raw materials. The Commission proposes to make it easier for some projects, by enabling a fast track of the processing of strategic raw materials. This might, however, not be as easy as it sounds, as processing waste to recover raw materials often includes different kinds of materials, both classified as critical and strategic. In Sweden for example, some old mining sites are holding waste from iron ore extraction and processing. A major component in this waste contains Phosphorus but it also contains some minor levels of Rare Earth Elements. For some strategic raw materials, current production is linked to base metal production which means base metal production could to some degree be regarded as strategic. Bismuth (defined as a strategic raw material), for example, is associated with [the base metal Lead](#) (currently not classified as a critical raw material). Due to this, Ragn-Sells argue that only focusing on the strategic raw materials may still lead to prolonged permit processes, as materials from the critical raw materials list are still included. One way to solve this issue would be to also include critical raw materials in the scope of the article.*

**National exploration programmes – Article 18 – paragraph 2 – point f (NEW)**

The Commission	Ragn-Sells
<p>1. Each Member State shall draw up a national programme for general exploration targeted at critical raw materials. Each Member State shall draw up the first such programme by [OP please insert: 1 year after the date of entry into force of this Regulation]. The national programmes shall</p>	<p>1. Each Member State shall draw up a national programme for general exploration targeted at critical raw materials. Each Member State shall draw up the first such programme by [OP please insert: 1 year after the date of entry into force of this Regulation]. The national programmes shall</p>

<p>be reviewed and, if necessary, updated, at least every 5 years.</p> <p>2. The national exploration programmes referred to in paragraph 1 shall include measures to increase available information on the Union's critical raw material occurrences, including deep ore deposits. They shall include, as appropriate, the following measures:</p> <ul style="list-style-type: none"><li>(a) mineral mapping at a suitable scale;</li><li>(b) geochemical campaigns, including to establish the chemical compositions of soils, sediments, rocks;</li><li>(c) geoscientific surveys, such as geophysical surveys;</li><li>(d) processing of the data gathered through general exploration, including through the development of predictive maps;</li><li>(e) reprocessing of existing geoscientific survey data to check for unidentified mineral occurrences containing critical raw materials.</li></ul>	<p>be reviewed and, if necessary, updated, at least every 5 years.</p> <p>2. The national exploration programmes referred to in paragraph 1 shall include measures to increase available information on the Union's critical raw material occurrences, including deep ore deposits. They shall include, as appropriate, the following measures:</p> <ul style="list-style-type: none"><li>(a) mineral mapping at a suitable scale;</li><li>(b) geochemical campaigns, including to establish the chemical compositions of soils, sediments, rocks;</li><li>(c) geoscientific surveys, such as geophysical surveys;</li><li>(d) processing of the data gathered through general exploration, including through the development of predictive maps;</li><li>(e) reprocessing of existing geoscientific survey data to check for unidentified mineral occurrences containing critical raw materials;</li><li><b>(f) mapping of urban waste flows (including wastewater treatment plants).</b></li></ul>
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***Valuable raw materials can be recovered from waste. Wastewater and sewage sludge for example contain phosphorus and nitrogen, two materials that are essential for food production. Therefore, for the EU to become more self-sufficient, and to have a stable production of fertilisers and feed, the solution starts with high recovery demands on nutrients from the wastewater treatment plants. As such, these plants need to be considered resource plants, rather than merely wastewater treatment plants. To increase the use and recovery of these valuable resources from waste, Ragn-Sells suggests the inclusion of the mapping of urban waste streams in the national exploration programmes.***

**Coordination of strategic stocks – Article 22 – paragraph – point a and b**

The Commission	Ragn-Sells
<p>1. By [OP please complete: 2 year after the date of entry into force of this Regulation] and every 2 years after that, the Commission shall, based on the information received pursuant to Article 21(1), share with the Board: (a) a draft benchmark indicating a safe level of Union stocks for each strategic raw material, defined pursuant to paragraph 2; (b) a comparison of the overall level of Union stocks for each strategic raw material and the draft benchmark referred to in point (a); (c) information on the potential cross-border accessibility of strategic stocks, in light of the rules or procedures for their release, allocation and distribution.</p>	<p>1. By [OP please complete: 2 year after the date of entry into force of this Regulation] and every 2 years after that, the Commission shall, based on the information received pursuant to Article 21(1), share with the Board: (a) a draft benchmark indicating a safe level of Union stocks for each <b>critical</b> raw material, defined pursuant to paragraph 2; (b) a comparison of the overall level of Union stocks for each <b>critical</b> raw material and the draft benchmark referred to in point (a); (c) information on the potential cross-border accessibility of strategic stocks, in light of the rules or procedures for their release, allocation and distribution.</p>

***Ragn-Sells suggests broadening the scope of coordination of strategic stocks to not only cover the materials listed as strategic but also critical.***

**National measures on circularity – Article 25 – paragraph 1 – point b (NEW)**

The Commission	Ragn-Sells
<p>1. Each Member State shall by [OP please insert: 3 years after the date of entry into force of this Regulation] adopt and implement national programmes containing measures designed to:</p> <p>(a) increase the collection of waste with high critical raw materials recovery potential and ensure their introduction into the appropriate recycling system, with a view to maximising the availability and quality of recyclable material as an input to critical raw material recycling facilities;</p>	<p>1. Each Member State shall by [OP please insert: 3 years after the date of entry into force of this Regulation] adopt and implement national programmes containing measures designed to:</p> <p>(a) increase the collection of waste with high critical raw materials recovery potential and ensure their introduction into the appropriate recycling system, with a view to maximising the availability and quality of recyclable material as an input to critical raw material recycling facilities;</p>

<p>(b) increase the re-use of products and components with high critical raw materials recovery potential;</p> <p>(c) increase the use of secondary critical raw materials in manufacturing, including, where appropriate, by taking recycled content into account in award criteria related to public procurement;</p> <p>(d) increase the technological maturity of recycling technologies for critical raw materials and to promote materials efficiency and the substitution of critical raw materials in applications, at least by including support actions to that effect under national research &amp; innovation programmes;</p> <p>(e) ensure that their workforce is equipped with the skills needed to support circularity of the critical raw materials value chain.</p>	<p><b><i>(b) facilitate cross-border transport of waste for it to be processed in another Member State for the extraction of raw materials or used for research purposes.</i></b></p>
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***Ragn-Sells considers waste, or secondary raw material, as a key raw material for circular economies. Waste, therefore, needs to be treated as such by the upcoming different legislative acts and the acts currently in force. When promoting a transition to a more circular economy, the EU needs to ensure that waste or other secondary raw materials, like ash from incinerated sewage sludge, containing critical raw materials can be sent across borders.***

**National measures on circularity – Article 25 – paragraph 2**

The Commission	Ragn-Sells
<p>2. The programmes referred to in paragraph 1 shall cover in particular products and waste which are not subject to any specific requirement on collection, treatment, recycling or re-use under Union legislation. For other products and waste, the measures shall be</p>	<p><del>2. The programmes referred to in paragraph 1 shall cover in particular products and waste which are not subject to any specific requirement on collection, treatment, recycling or re-use under Union legislation. For other products and waste, the measures shall be implemented in coherence with existing Union legislation.</del></p>

implemented in coherence with existing Union legislation.	
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*In favour of the amendment in Article 25.1, it is necessary to delete Article 25.2.*

**ANNEX I – Strategic raw materials SECTION 1 LIST OF STRATEGIC RAW MATERIALS**

<b>The Commission</b>	<b>Ragn-Sells</b>
<p>The following raw materials shall be considered strategic:</p> <ul style="list-style-type: none"> <li>(a) Bismuth,</li> <li>(b) Boron - metallurgy grade</li> <li>(c) Cobalt</li> <li>(d) Copper</li> <li>(e) Gallium</li> <li>(f) Germanium</li> <li>(g) Lithium - battery grade</li> <li>(h) Magnesium metal</li> <li>(i) Manganese - battery grade</li> <li>(j) Natural Graphite - battery grade</li> <li>(k) Nickel - battery grade</li> <li>(l) Platinum Group Metals</li> <li>(m) Rare Earth Elements for magnets (Nd, Pr, Tb, Dy, Gd, Sm, and Ce)</li> <li>(n) Silicon metal</li> <li>(o) Titanium metal</li> <li>(p) Tungsten</li> </ul>	<p>The following raw materials shall be considered strategic:</p> <ul style="list-style-type: none"> <li>(a) Bismuth,</li> <li>(b) Boron - metallurgy grade</li> <li>(c) Cobalt</li> <li>(d) Copper</li> <li>(e) Gallium</li> <li>(f) Germanium</li> <li>(g) Lithium - battery grade</li> <li>(h) Magnesium <del>metal</del></li> <li>(i) Manganese - battery grade</li> <li>(j) Natural Graphite - battery grade</li> <li>(k) Nickel - battery grade</li> <li><b>(New) Nitrogen</b></li> <li><b>(New) Phosphate rock</b></li> <li><b>(New) Phosphorus</b></li> <li>(l) Platinum Group Metals</li> <li><b>(New) Potassium</b></li> <li>(m) Rare Earth Elements for magnets (Nd, Pr, Tb, Dy, Gd, Sm, and Ce)</li> <li>(n) Silicon metal</li> <li>(o) Titanium metal</li> <li>(p) Tungsten</li> </ul>

*The EU considers sixteen of the critical raw materials to be of strategic value. These raw materials are mainly metals and minerals required for the green and digital transition, as well as defence and space. The green transition as presented in the Green Deal will, however, require a safe supply of a broader set of raw materials than only the proposed strategic raw materials.*

*Phosphorus, phosphate minerals and magnesium, which are listed as critical raw materials, are for example not included in the Commission’s list of strategic raw materials. This means*

***that phosphorus, which is a crucial nutrient for agriculture is not covered by many of the new measures, such as the fast track for permit processes and concrete recycling targets linked to the strategic raw materials in the regulation. This exclusion risks lead to continued EU dependence on importing phosphorus from Russia and Morocco. Today, the EU is largely (92%) dependent on imports as most mines are located outside Europe (incl. Russia). The limited availability of this scarce resource leads to a large ecological footprint from mining, long transport and health issues from cadmium contamination. Phosphorus can also, in addition to being used to produce fertilisers, be used for battery production. The EU needs to consider all the available technologies if it is serious about reducing its dependency on the import of these materials. To be able to reduce its dependence on countries like China, all kinds of technologies need to be used.***

***Magnesium is another important critical raw material for the EU. Ragn-Sells technology could produce 30% of the EU's annual targeted production of magnesium. However, only magnesium metal is classified as a strategic raw material. Ragn-Sells strongly believes that the exclusion of magnesium as a strategic raw material will limit the EU's ability to recycle magnesium metal.***

***Ragn-Sells, therefore, considers it important to include phosphorus, phosphate rock and magnesium, as well as Nitrogen and Potassium, in the list of strategic raw materials.***

**Annex II – Critical raw materials – Section 1 List of critical raw materials**

<b>The Commission</b>	<b>Ragn-Sells</b>
<p>The following raw materials shall be considered critical:</p> <ul style="list-style-type: none"> <li>(a) Antimony</li> <li>(b) Arsenic</li> <li>(c) Bauxite</li> <li>(d) Baryte</li> <li>(e) Beryllium</li> <li>(f) Bismuth</li> <li>(g) Boron</li> <li>(h) Cobalt</li> <li>(i) Coking Coal</li> <li>(j) Copper</li> <li>(k) Feldspar</li> <li>(l) Fluorspar</li> <li>(m) Gallium</li> <li>(n) Germanium</li> <li>(o) Hafnium</li> </ul>	<p>The following raw materials shall be considered critical:</p> <ul style="list-style-type: none"> <li>(a) Antimony</li> <li>(b) Arsenic</li> <li>(c) Bauxite</li> <li>(d) Baryte</li> <li>(e) Beryllium</li> <li>(f) Bismuth</li> <li>(g) Boron</li> <li>(h) Cobalt</li> <li>(i) Coking Coal</li> <li>(j) Copper</li> <li>(k) Feldspar</li> <li>(l) Fluorspar</li> <li>(m) Gallium</li> <li>(n) Germanium</li> <li>(o) Hafnium</li> </ul>

(p) Helium	(p) Helium
(q) Heavy Rare Earth Elements	(q) Heavy Rare Earth Elements
(r) Light Rare Earth Elements	(r) Light Rare Earth Elements
(s) Lithium	(s) Lithium
(t) Magnesium	(t) Magnesium
(u) Manganese	(u) Manganese
(v) Natural Graphite	(v) Natural Graphite
(w) Nickel – battery grade	(w) Nickel – battery grade
(x) Niobium	(x) Niobium
(y) Phosphate rock	<b>(new) Nitrogen</b>
(z) Phosphorus	(y) <del>Phosphate rock</del> <b>Phosphorus in any form</b>
(aa) Platinum Group Metals	(z) <del>Phosphorus</del> <b>P<sub>4</sub> and derivatives</b>
(bb) Scandium	<b>(new) Potassium</b>
(cc) Silicon metal	(aa) Platinum Group Metals
(dd) Strontium	(bb) Scandium
(ee) Tantalum	(cc) Silicon metal
(ff) Titanium metal	(dd) Strontium
(gg) Tungsten	(ee) Tantalum
(hh) Vanadium	(ff) Titanium metal
	(gg) Tungsten
	(hh) Vanadium

*Ragn-Sells believes that the current terminology used in the Critical Raw Materials Act leads to confusion. “Phosphorus” effectively means only the specific form of phosphorus P<sub>4</sub> (also known as White or Yellow Phosphorus) and it is derivatives or vector chemicals.*

*“Phosphate Rock” is defined in the current version of the [SCRREEN Factsheet](#) as “an indicator of phosphorus in different forms (mineral, organic) used in agriculture and industry (fertilizer chemicals or phosphoric acid, but also organic fertilizers, manures, crop products used as animal feed).”*

*We, therefore, propose to modify the terminology of both Phosphate rock and Phosphate.*

*In line with our suggested amendments in Recital 1 and 4 and Article 2 on the inclusion of food and feed under the scope of this regulation, we also propose the inclusion of Nitrogen and Potassium to the lists of Critical Raw Materials and Strategic Raw Materials.*



**System boundary – Annex V – paragraph 4**

The Commission	Ragn-Sells
<p>Extraction, concentration and refining are the three life cycle stages to be included in the system boundary of primary critical raw materials with the following processes (when relevant to the specific raw material):</p> <ul style="list-style-type: none"> <li>(a) Upstream processes including the extraction of ore for raw material production, production and supply (transport) of chemicals, auxiliaries, production and supply (transport) of fuels, production and supply of electricity, and transport of materials in vehicles not owned by the organisation;</li> <li>(b) Transport of ore, concentrates and raw materials in vehicles owned or operated by the organisation;</li> <li>(c) Storage of ore, concentrates and raw materials;</li> <li>(d) Ore crushing and cleaning;</li> <li>(e) Raw material concentrate production;</li> <li>(f) Metal extraction (by chemical, physical or biological means);</li> <li>(g) Smelting;</li> <li>(h) Metal conversion;</li> <li>(i) Slag cleaning;</li> <li>(j) Metal refining;</li> <li>(k) Metal electrolysis;</li> <li>(l) Metal casting or packaging;</li> <li>(m) Spent material and slag treatment;</li> <li>(n) All related auxiliary processes such as waste water treatment (on site, including for treatment of process waters, direct cooling, water and surface run off water), gas abatement systems (including for primary and secondary off gases, boilers (including pre-treatment of feed water), internal logistics.</li> </ul>	

<p>In the system boundary of secondary critical raw materials (defining the recycling life cycle stage), the following processes (when relevant to the specific recycled raw material) shall be included:</p> <ul style="list-style-type: none"><li>(a) Upstream processes including the generation of raw feed material (scrap materials and virgin copper concentrates, the production and supply (transport) of chemicals, auxiliaries, production and supply (transport) of fuels, the production and supply of electricity, and the transport of materials in vehicles not owned by the organisation;</li><li>(b) Transport of concentrates and scraps in vehicles owned or operated by the organisation;</li><li>(c) Storage of scraps, concentrates and raw materials;</li><li>(d) Secondary material pre-treatment;</li><li>(e) Smelting;</li><li>(f) Metal conversion;</li><li>(g) Metal refining;</li><li>(h) Metal electrolysis;</li><li>(i) Metal casting or packaging;</li><li>(j) Spent material treatment;</li><li>(k) All related auxiliary processes such as waste water treatment (on site, including for treatment of process waters, direct cooling, water and surface run off water), gas abatement systems (including for primary and secondary off gases, boilers (including pre-treatment of feed water), and internal logistics.</li></ul> <p>The use phase or end-of-life phase shall be excluded from the environmental footprint calculations, as it is not under the direct influence of the responsible economic operator. Other processes may be excluded where their</p>	
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contribution to the environmental footprint of a specific critical raw material is insignificant.	
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***We would like to ensure that any environmental effects of waste rock are included when quantifying the Environmental Footprint. To access deep deposits or low-grade deposits typically large amount of waste rock needs to be removed to get access to the deposits. The energy needed to remove waste rock and any environmental effects such as leaching should be included in the System boundary. As ore grades fall and mining is done on larger depths more waste rock will inevitably be produced and hence the environmental footprint increases.***

Väderholmens gård, Sollentuna  
2023-04-20



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Susanna Lind, Chef samhällskontakter Sverige, Ragn-Sells