



SCRREEN2

Coordination and Support Action (CSA)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 958211.

Start date : 2020-11-01 Duration : 36 Months

Communication strategy and action plan

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Summary

This report describes the concept and the strategies for multi-channel communication activities to be undertaken by SCRREEN2. These concern communication on general societal (critical) raw materials needs and challenges (WP8) and on the project itself (WP9). However, both aspects are closely linked and will share messages and modes of delivery. A range of delivery modes are envisaged, namely a ?push-mode? (e.g. newsletters, policy briefs, EURONEWS video), a ?pull-mode? (e.g. information on the project Web-site and the INTRAW World Barometer Web-site), hybrid modes (e.g. notifications on ?pull? information), and interactive modes (e.g. focus groups in European regions, educational programmes for school-children). While this strategy and its mode of delivery are outlined in this document with respect to scope and schedule political and economic developments over the course of the project duration may require flexibility and adaptation. In the interactive modes mentioned above, the SCRREEN2 team will also listen to the stakeholders and adapt the messages, the modes of delivery and the timing to evolving needs. This strategy will be revised in project M18 and adapted or amended, if required.

Approval

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ACRONYMS AND ABBREVIATIONS

Acronyms	Description
SCRREEN2	Solutions for Critical Raw mateRials – a European Expert Network 2
CRM	Critical Raw Materials
DoA	Description of Action
GA	Grant Agreement
EC	European Commission
RMIS	Raw Materials Information System
RM	Raw Materials
EIP	European Innovation Partnership
EIT-KICs	European Institute of Innovation Technologies – Knowledge and Innovation Communities
EIT-RM	European Institute of Innovation Technologies – Raw Materials

Table 1: Acronyms and abbreviations

EXECUTIVE SUMMARY

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INTRODUCTION

This document lays out a detailed strategy and action plan to raise awareness of critical raw materials. This document describes the strategy, its underlying rationale, and planned implementation.

The various stakeholder groups (regulators, institutional and civil society actors, industry, consultants, academia, end-users etc. pertinent to the various value chains) and the more general public to be targeted will be precisely identified at the beginning of the project, and the various actions and channels will be elaborated, based on the insights from other Work Packages and previous FP7 and H2020 projects.

As such, the content to be delivered will be extracted from the results of Work Packages 3-7 and based on the results from other current H2020 projects with which this project will be clustered. For each target group, the types of content, delivery channels and schedule will be defined. KPIs will also be listed and a monitoring routine will be put in place.

The strategy will be updated annually based on the KPIs: adaptations, revisions and/or launching new actions will be undertaken, if appropriate, to reach the targeted impacts.

A dedicated landing page for this awareness action will be developed from the start of the project on the SCRREEN website to showcase all of the content produced in this Work Package and promote this material towards the stakeholders.

ESSENTIAL MESSAGES

The overall objective of WP8 is to raise the awareness among all stakeholders of raw materials needs and in particular those deemed critical (Blengini et al., 2020), while that of WP9 is to raise awareness of the SCRREEN2 project itself and its outputs and results.

The importance of Critical Raw Materials and other relevant materials for strategic value chains to deliver the EU Green Deal and in support of the implementation of the Sustainable Development Goals (SDGs) in the EU will need to be highlighted. Indeed, the extraction, manufacturing, use and end of life of critical raw materials can generate severe environmental and social impacts, in addition to their high supply risk due to global and regional factors. However, their omnipresence in our everyday lives (energy, transport, high-tech devices and applications, medical devices, construction sector etc.) makes them crucial for economic development and wellbeing.

Criticality is a relative concept, depending on a wide variety of political, economic, technological, socio-economic, and geological or biological variables. Some of these variables are predetermined and cannot be changed, such as the geological occurrence of certain minerals, or the climatic conditions required to produce certain organic raw materials. Other variables are beyond the immediate control of the EU, such as the geopolitical actions of states that are important or sole suppliers of certain raw materials.

A range of variables that act as constraining factors to a sustained supply of the EU economy can be influenced by policy and technology decisions within the EU. Policy decisions in turn depend on the prevailing socio-economic context. It is, therefore, essential to understand the motivations of the different stakeholders and to make them aware of the consequences of their decisions as well as their views on domestic extraction on the availability of raw materials. Many stakeholders lack a systemic view of the possibly far-reaching consequences

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of decisions made on policy and technology. A point in case is the promotion of biofuels that has led to food shortages and massive release of carbon from rainforests converted into oil-palm groves or the massive increase in needs of copper and REE due to the promotion of electromobility. Stakeholders also have to understand the relative energy requirements and carbon emissions from the use of the various raw materials in order to make balanced choices, both as a policymaker and as a consumer.

Recent changes in the spectrum and size of (mineral) raw materials needs are driven by policy decisions in the EU and Member States with a view to promoting a transition to a ‚green‘ and low-carbon economy. A transition to a more circular economy will slow down the increase in needs for certain materials, but unavoidable societal and process losses will have to be made good by the extraction of primary raw materials. In addition, new technology developments increase the demand for new raw materials for which not yet sufficient societal reservoirs amenable to recycling exist.

The main message to convey to the different audiences will be to explain how critical raw materials and other relevant materials for strategic value chains contribute to the implementation of the Sustainable Development Goals in the EU.

TARGET AUDIENCES

TARGET AUDIENCES BY RAW MATERIALS KNOWLEDGE LEVEL

The broader target audiences encompass all citizens of the European Union and associated countries. However, their level of previous knowledge about raw materials and in particular CRMs and their flows in the socio-technological system is rather varied. Most citizens have only a limited background in natural sciences and, therefore, a limited understanding of positivist natural science concepts and language. There is also an increasing number of citizens in the EU, who reject such concepts on an ethical or value-basis, while in other cases their socio-cultural background makes them unfamiliar with western world concepts. Hence, language and concept for communication have to be adapted to diverse groups of citizens.

While in principle all stakeholder groups can make themselves bear on the relevant raw materials policy processes, their likely degree of importance and weight will vary.

Stakeholder mapping - Therefore, a mapping of stakeholders concerning their likely understanding of scientific technical concepts and with respect to their role in society will be undertaken. The respective information will be compiled in a stakeholder database (cf. Section 3.4). It is expected that major groups of stakeholders would be identified, for which distinct messages and modes of delivery in Tasks 8.2 (professional audiences) and 8.3 (general public audiences) respectively have to be developed.

Professional audiences may be distinguished into two groups, namely those for which some knowledge of raw materials issues can be expected (earth scientists, mining and metallurgy professionals, industry associations, relevant regulators) and those, who may have a background in natural sciences or engineering, but no specific knowledge of raw materials matters.

General public audiences may be grouped into different levels of education and age groups for which the messages can be tailored with different levels of sophistication of concepts and language.

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Teenagers/high-school pupils - A specific (sub-)group of relevance will be pupils in secondary schools. These teenagers are significant, because their value-system is still forming and it is important to provide them with information that will help them make informed judgements later.

TARGET AUDIENCES BY INTEREST GROUP

Position in the value-web - Stakeholders may also be looked at from the perspective of their position in the strategic value-web or in the end-use sector (e.g. batteries, e-mobility, renewable energy, electronics, defence and aerospace). Messages addressing these specific target audiences will be formulated in Task 8.2.

European Regions - To facilitate domestic supply, it will be essential to target the regions that might consider adding mining to their economic portfolio. The network of mining and metallurgy regions (CoMMER, hosted by ERRIN, <https://errin.eu/>) and currently being established by the H2020 project [MIREU](#) will be an important vehicle to reach the target audiences at regional/local political as well as general public level.

Policy-makers could be addressed at various levels ranging from local mayors, regional administrators, national parliamentarians, to Members of the European Parliament.

World regions - A target audience apart will be professional and institutional stakeholders outside Europe (EU-27 and associated countries). However, the criticality perspective will be different in other regions of the world, as these may be either competitors on the world market or suppliers. Here the focus will be more on the dissemination of the SCRREEN2 project results, rather than awareness-raising of generic CRM issues, so that this aspect will be covered mainly by WP9.

The starting point will come from the insights gained from other projects, such as the previous SCRREEN project and MICA. For each group of stakeholders, a set of tailored information will then be prepared to provide them with the background-knowledge and enhanced awareness of CRMs. Task 8.2 and 8.3 will cover the development of such 'messages' and their delivery for professional and public stakeholders.

STAKEHOLDER AND CONTACT DATABASE

PURPOSE AND SCOPE

Stakeholders are all individual citizens across the European Union and associated countries, but also all types of associations, ranging from industry associations, to professional associations, to interest groups, but also NGOs of various types. The project will not target private individuals, unless in their professional capacity.

The preferred medium for the distribution of push-messages would be email. This requires the compilation of lists of names and email-addresses. Due to the personal data protection regulations (Regulation 216/679; CEU, 2016), the compilation of lists of individual addressees is more restricted now. A clear request for consent to be included in the SCRREEN2 mailing list will be sent to the identified stakeholders. If they give their specific and informed consent to be part of the mailing list, they will receive information on the SCRREEN project and the awareness raising campaigns. Each email will contain a link giving them the possibility to withdraw their previously given consent and be deleted from the mailing list.

Developing targeted messages requires a mapping of stakeholders and their respective interests or of whom they may represent as a group. However, stakeholder mapping will not extend to private individuals, but only

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to individuals as representatives of organisations, institutions, or associations. This mapping will include the name of the organisation etc., their Web-site URL, country of incorporation, type (e.g. government, NGO, industry association, etc.) range of interests or representation, and a contact email-address (either a functional email-address or that of a representative for this organisation etc.). In fact, all this information will be compiled through Web-searches, thus comprising information already in the public domain and disclosed by the organisations etc. themselves.

The stakeholder mapping will build on the compilations undertaken in SCRREEN, augmented by Web-searches (see Appendix A), while making sure that the requirements for individual data protection (see below) are fulfilled. Each entry will be flagged as belonging to a particular stakeholder group, so that distribution lists for specific messages and channels can be generated quickly. Stakeholders will receive an email requesting their consent to be included in the mailing lists of SCRREEN2 and they will be able to opt out at any time.

The SCRREEN Network of Experts will also be called upon to help identify relevant (institutional) stakeholders in their respective countries and elsewhere.

An example of the content of the stakeholder database is provided in Appendix A.

COMPLIANCE POLICY WITH REGULATION (EU) 2016/679

The compilation and maintenance of such stakeholder database has to comply with the European regulations on individual data protection and transparency (CEU, 2016). A data management plan (DMP) is being drafted under WP10 and will be available in M6 (Deliverable D10.2). The DMP will serve as the policy statement on the handling of data potentially falling under Regulation (EU) 2016/679 (CEU, 2016). This database will only contain information that has been available in the public domain, such as the stakeholders' own Web-sites or from reports previously published. Specific consent from stakeholders will be requested in order to add them to the SCRREEN2 mailing list. They will also be given the possibility to opt out at any time.

MODES OF DELIVERY

OVERVIEW

There are three main types of delivery, namely push and pull modes, as well as interactive modes, such as webinars or focus-groups. Pull delivery means that the interested persons will go to the place where they expect to obtain information, e.g. a dedicated Web-site. Conversely, push delivery means that messages are sent out either targeted to individuals (e.g. by email, newsletters, etc.) or without targeting identified recipients (e.g. press releases, 'Tweets', posts on professional networks, such as LinkedIn, etc.). Hybrid push modes are also common, whereby individual recipients are sent notifications that new content has been published on one of the systems. The content of selected messages distributed originally as push-messages will also be made available as pull-messages on the project Web-site, for instance press-releases.

It should be noted that the terms 'push' and 'pull' are being used in a sense slightly different from the one used in marketing.

PUSH MODES

Press releases – regular press releases to specialised media and general public media will inform about CRM-relevant topics. These press releases or media feeds will be co-ordinated with WP9, which focuses on informing about the progress of the project itself. The achievement of certain milestones in the project or external events, such as the EU Raw Materials Week in November of each year could be suitable triggers. The contents and timing of the press releases will also be defined in consultation with the SCRREEN2 project co-ordinator.

SCRREEN2 video – a video will be produced that show-cases the importance of mineral raw materials and in particular CRMs for society and what the project is doing to address this. It is envisaged to produce this in a format suitable for airing in the FUTURIS or Business Planet slot of Euronews (or in collaboration with Euronews), where such projects are presented regularly. Also a short, 1-minute video for posting on social media will be produced. These videos will focus on raw materials, particularly CRMs and their importance for the development of the EU and in particular for the implementation of the European Green Deal. The videos will be developed in collaboration between Task 8.3 and WP9. After a first airing on e.g. Euronews they will be put also onto the SCRREEN Web-site or social media platforms to be accessible in ‘pull-mode’ (see below). An example video produced in the context of the FP7 project I²Mine can be viewed here: <https://vimeo.com/86589598>. in the context of the EU project SmartExploration (<https://smartexploration.eu/>) a video with a similar objective was recently produced and aired on Euronews: <https://www.euronews.com/2020/12/18/digging-for-a-green-future>. Another example is this one produced by ASSIMAGRA: <https://youtu.be/O7dpVjpmSBg>. Preparations for this video including identifying a suitable producer will be undertaken in the Q1 of 2021. In addition, short video animations prepared for the INTRAW project (<https://intraw.eu/media-corner-2/>) will be reviewed and adapted for use by SCRREEN2.

Social media campaigns – snippets of general CRM-relevant information (by WP8) and news on SCRREEN2 (by WP9) will be prepared for release through social media channels (e.g. YouTube, LinkedIn, Twitter), perhaps in collaboration with ‘influencers’ (see below). A social media ‘task force’ will be set up with WP9, which will collate pertinent information and prepares it for release. SCRREEN2 project participants will be invited to become ‘social media ambassadors’ to function as multipliers. The content will be prepared under Tasks 8.2 and 8.3, while the respective campaigns will be initiated by WP9. In order to coordinate the social media activities, a Hootsuite-account (<https://www.hootsuite.com>) was created. Content and selection of suitable channel will be based on target audiences, their age profiles and areas of interest and previous knowledge (see below).

One can envisage short, but regular, social media campaigns, where relevant information is posted once (or maximum twice) per week over a duration of 6-8 weeks each. The campaigns should use (audio-)visual material (see Section 4.3) to capture the users’ attention. The style and contents will be adapted to the target group and the channel. The campaigns will include a ‘call to action’, inviting to visit the SCRREEN Web-site for further information, to follow the other channels, etc.

The actual schedule for the social media campaigns will be defined in WP9 and will also take into consideration current political and economic developments and capitalise on other events with bearing on (critical) raw material.

Influencers - Not necessarily a phenomenon of the 21st century, but in the age of social media certain people attain importance as role models, trendsetters, and endorsers beyond country and continent borders. They are instrumental with respect to social groups that are still in their formative years and whose value systems, views

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and preferences are still pliable. Language, can be a barrier for a wider audience of potential influencers. It is suggested to focus on two groups, young people and politicians.

A variety of EIT RM sponsored projects that target young people are under way (see below) and synergies with these projects will be created, by feeding relevant content to them.

As noted in Section 4.5 below, INTRAW has already been targeting Members of the European Parliament, particular those who have shown interest in (mineral) raw materials issues and will now continue the '*Coffees with Geoscience*' with a view to reach out to other political decision-makers at EU and national level.

Multipliers - The Network of Experts established under SCRREEN will also be relied upon as multipliers. Members of the Network will be supplied with the information material developed and they are expected to provide information on events and other opportunities to raise awareness and disseminate information on SCRREEN2. Again, content will be prepared under Tasks 8.2 and 8.3, while the delivery rests on WP9.

Policy briefs – It will be useful to time the policy brief to be formulated and fed to law makers at the European and Member State level to e.g. the European Raw Materials week in November of each year and to the '*Coffees with Geosciences*' (see below) planned annually for MEPs. The MEPs will be encouraged to act as influencers and multipliers in their home countries – we may encourage them to have the policy briefs translated into their national language (depending on their length and actual distribution channels, we may envisage to provide translation into selected EU languages ourselves). Topics for the policy briefs must be adapted to the present situation, but possible topics could include:

- How decisions by policy-makers at the national and EU-level could impact the criticality of raw materials?
- Why is a systemic view on policy-making with regard to critical raw materials required?
- What makes Critical Raw Materials 'critical'?
- The European Green Deal and Critical Raw Materials
- Social behaviour and Critical Raw Materials

SCRREEN2 newsletters – The awareness of the SCRREEN2 project and its results will be raised via a 6-monthly newsletter to be sent to project audiences. A newsflash will be sent for the campaign launch. These newsletters will be prepared and released by WP9.

PULL MODES

Project Web-site – The SCRREEN2 project Web-site will be used to avoid losing important information generated in the first project. For the continuation of SCRREEN, the Web-site will be updated with the most recent information on CRMs and the project itself. A dedicated landing page will be created and dedicated to contextual information on the importance (mineral) raw materials for the continued development of our societies beyond those raw materials that are deemed critical.

Infographics/visual elements – The campaign key messages will be presented in a visually attractive way, as cartoon-like images might be more appealing to specific audiences than long-winded text. Also certain contextual facts and relations can be conveyed more convincingly in a graphical way. As the visuals are mainly targeted to members of the general public, their topics will be defined in WP8.3. The number of these visuals

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will be determined by the number of relevant topics identified in this Task. Examples of such visuals produced by the project INTRAW can be seen here: <https://intra.wu.ac.at/reports-factsheets/>.

Videos and video animations – Videos and video animations originally produced to be used in a ‘push-mode’ can also be made available through either the SCRREEN project Web-site or external platforms, such as YouTube, for individual download.

Complementing material from EIT RM - Some EIT Raw Materials activities will be linked here, for example:

- MineFacts (<https://www.minefacts.eu/>) gives easy to understand, fact-based and unbiased information about mineral extraction, exploration and sustainability.
- Mine Heritage (<https://mineheritage.appspot.com/>) intends to create popular educational tool for dissemination, e.g. videos, booklets, brochures.

These materials will also be used to inform other elements of the awareness-building activities.

HYBRID MODES

World Barometer – the INTRAW International Raw Materials Observatory compiles a newsfeed on (mineral) raw materials topics and development every fortnight. The [World Barometer](#) will feature to this end a special category dedicated to critical (mineral) raw materials with special reference also to SCRREEN2. The World Barometer Web-site will provide links to relevant information material generated by SCRREEN2. Relevant information from the SCRREEN2 project will be supplied to the INTRAW repository as and when it arises.

In this sense the World Barometer is a pull-mode for message delivery, but it also informs subscribers about the availability of a new issue and relies on multipliers to inform others about new issues.

INTERACTIVE MODES

Local focus-groups (in person or on-line) - Under certain settings and with outside support joint focus-groups on societal raw materials needs can be envisaged. Such events will require local support and contacts in order to attract the right target audience and to support their organisation locally. Overall, it is expected that these events would be low-key and quite informal. To this end contacts with the Committee of Mining and Metallurgy Regions (CoMMER) was established. The CoMMER is a spin-off of the H2020 project MIREU (<https://mireu.eu/>). Various regions across Europe that have mining currently or envisage to make extraction part of their economic portfolio are members of CoMMER. While CoMMER is still in a process of early consolidation, the secretariat of CoMMER is provided by ERRIN (<https://errin.eu/>). Initial discussions were held with ERRIN and an outline plan of action to create mutual synergies was agreed upon:

- initial discussions with CoMMER-members in March 2021 to establish, whether there is an interest in principle and what would be the benefits for the regions;
- agreement on the scope, content, possible formats (in-person post 2021 or on-line), target audiences, and which region would be prepared to host such event;
- agreement on the logistics of such events (date, attendance, persons involved) and preparation of the necessary supporting materials, if any;

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- CoMMER members organise in their regions the event and advertise them appropriately; local logistical support is provided by the regions;
- roll-out of events probably in 2022 and 2023.
- writing up in reports on the events by the SCRREEN2 team.

Life-long learning - The EIT Raw Materials life-long learning programmes will be integrated, namely Edumine (<https://www.edumine.com/>), a well-known platform that provides professional development training for people in the mining industry worldwide.

Coffee with Geosciences - INTRAW in November 2020 organised a Webinar with a group of MEPs (*Coffee with Geosciences*) to present them with the Green Deal raw materials' challenges. It is envisaged to repeat such an event around the 2022 Raw Materials Week (November?), dedicated to CRMs. This event will be hosted formally by two MEPs and a number of MEPs (or their aides as substitutes), who in the past have shown interest in mineral raw materials issues, will be invited. The format will include two to three incentive presentations, followed by a round-table discussion. The discussion will be moderated by an independent expert in the field. The webinar format has the advantage that MEPs (or their aides) can participate independent of their current whereabouts. Also Chatham Houses rules will be applied to allow an unrestrained discussion.

Conference presentations – peers in the field will be addressed through participation in relevant scientific and technical conferences at the European level and abroad. These conference presentations should concern CRM issues as such, not the SCRREEN2 project, which is the domain of the dissemination WP9. The whole Consortium will be consulted with respect to prospect speakers/authors, suggestion for paper titles and conferences of relevance. A list of these activities will be established together with WP9 in order to pool efforts.

MEASURES SPECIFICALLY TARGETED AT YOUNG AUDIENCES

Studies and surveys undertaken by e.g. UNESCO and the International Geosciences Education Organisation (UNESCO & IGEO, 2019) showed that geosciences teaching today broadly focuses on environmental issues and eye-catching subjects, such as dinosaurs, but the economic dimension of geology becomes more and more neglected in European schools. In fact pupils are often taught about the solar and planetary system, about (ground)water, geomorphology, a bit of sedimentology and volcanology and of course 'dinosaurs', but not about the importance of geological resources for their everyday life and how the resources get out of the earth into the anthroposphere. That is a missing link, corroborated by an Italian study (Bonaccorsi et al., 2020). This is in contrast to the importance of raising the awareness of children and teenagers in their early formative years of the sources of the raw materials and (re)connect them with the ways these mineral raw materials are brought into the anthroposphere. It is also important to make people aware at an early age that their choices and life-style have significant consequences on the raw materials needs of society and that this comes at certain costs and impacts beyond their own region or country.

On-line games – WP8 will explore the possibility of creating an online quiz/challenge as an educational tool to draw attention of the younger audience to the awareness campaign on raw materials. It is also envisaged to publicise the card game that is being developed in the project MIREU (www.mireu.eu) for educating on the needs of mineral raw materials (part of the forthcoming 'Toolbox', MIREU Deliverable D4.4).

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The SCRREEN2 project will be able to build on resources developed by the EIT Raw Materials and create synergies with various of their initiatives, as outlined below:

Interactive learning resources – SCRREEN2 will build on existing resources developed for more information about (critical) raw materials, e.g.:

- *E-mining@School* (<https://ewaste.education/>) a project about e-waste and education projects with schools all over Europe teaching students about E-waste and empowering students to teach their communities and perform waste collections and raise awareness for critical raw materials.
- *Raw Matters Ambassadors at Schools* (RM@School, <https://rmschools.isof.cnr.it/>) is developing strategic dissemination capacity and methodology to improve the image of science & technology in schools for pupils aged 10 to 19 years, explaining the value of raw materials, while promoting new professional careers in this sector.
- *Young Innovators programme* (<http://www.jaeurope.org/>) enables young people aged 15-18 with entrepreneurship and STEM (Science, Technology, Engineering, and Mathematics) skills and an understanding of the opportunities of the raw materials sector through a blend of activities.
- *BetterGeoEdu* (<https://www.bettergeoedu.com/>) is an EIT funded project that utilises one of the most popular video games in history, Minecraft (<https://www.minecraft.net>), to disseminate knowledge about raw materials in primary schools. The project is focused on the Minecraft modification BetterGeo, which introduces realistic geology and raw material management to the game.
- *Girls Go Circular* (<https://eit-skills4future.eu/girls-go-circular>) will contribute to closing the digital gender gap, particularly in those countries defined as modest and moderate innovators according to the European Innovation Scoreboard (https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en).
- *The Briefcase Project* (<https://eitrawmaterials.eu/the-briefcase-of-mineral-applications/>) The project brings the opportunity to learn more about minerals through hands-on experience to primary and secondary schools and targets pupils from 6 to 14 years of age and their teachers. It aims to raise children's knowledge of mining activities and mineral applications during their visits to the museum (see also below). A real 'briefcase' that contains minerals and products was created in 2003 to help students recognise mineral ores and their uses in daily life.

There are also various informative visual learning resources, e.g. short animated videos, that can be referred to, such as this one coming out of the ENGIE project (www.engieproject.eu), aimed to tempt girls of the age 13 to 18 to into the geosciences: <https://youtu.be/lvtrhd19dls>.

Collaboration with museums – Many natural history and technical museums around Europe do have geology and mineralogy mining or raw materials-industry related departments. In addition to the usual collections of rock and mineral samples, such museums may have attractive displays and dioramas that illustrate mining and the processing of minerals including metal ores. It is planned to map the museums across Europe with respect to what they can offer, the state of their displays (some can be quite out-dated with respect e.g. to the mining and processing methods), and whether they would be willing to cooperate. INTRAW will be tasked with this stock-taking exercise, aiming to select a small number of museums for a pilot project. In the first step the selected museums will be invited to review their displays, if needed, and it will be discussed with them how

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these could be updated to convey information on raw materials' needs and their modes of production. In a second step, local schools interested in delivering 'raw materials experience' programmes in collaboration with the museums will be identified. Owing to limited resources, the project SCRREEN2 will only act as a seed.

COMMUNICATION VISUAL IDENTITY

All communication material to be used by WP8 and WP9 will use the SCRREEN2 visual identity to be developed under Task 9.3 in the communication tool-kit.

CONTENT DEVELOPMENT AND VALIDATION

The basis for these messages to be conveyed will be drawn from the work that is performed in the Work Packages 3 to 7 and an analysis of the world context. In addition, the INTRAW World Barometer (<https://intraw.eu/world-barometer/>) will be used to provide data and information to feed into their development. The leaders of WP3 to 7 and certain Task leaders will be queried every six months as to important messages they wish to see conveyed and when in order to tally with their activities and events.

Draft visuals, infographics and story-boards for videos will be circulated among the WP and certain task leaders for comments and validation.

There will be three large groups of content, each of which has its own pace of development and perhaps half-life:

- generic information on the relevance of (mineral) raw materials for our societies;
 - crucial for the sustainable functioning of our economies
 - importance of rare earth elements for renewable energy technologies
- information on the particular socio-economic and socio-political context for certain raw materials that leads to them being considered 'critical';
 - concentration of the occurrence of certain minerals in a few countries only
 - Europe's dependence on foreign imports of raw materials
 - increasing resource nationalism
 - fierce competition on the World market for certain minerals
 - protectionism and strategic resource controls
- information of technical nature concerning the supply, demand and use of those raw materials considered 'critical';
 - thermodynamic limits to supply from recycling
 - supply needs during the transition period of the European Green Deal
 - socio-economic trajectories and raw materials needs
 - re-use strategies

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- recycling of end-of-life goods
- development of innovative, clean and sustainable technologies for the exploration, extraction and processing of raw materials in Europe.

KEY PERFORMANCE INDICATORS (KPIs)

A series of KPIs have been selected to be able to adapt the awareness campaign content and overall strategy if needed and best respond to the audiences' expectations.

Channels	Target Audiences	KPIs
Website		<ul style="list-style-type: none"> • At least 10 000 website visits/600 downloads by the end of the project • Top page views
Social Media		<ul style="list-style-type: none"> • At least 1000 followers/200 interactions by the end of the project • Number of interactions per channel / engagement rates and re/tweets
Video on CRMs		<ul style="list-style-type: none"> • More than 900 views
Press releases		<ul style="list-style-type: none"> • At least 5 issued (in collaboration with WP9)
Media mentions		<ul style="list-style-type: none"> • 10 mentions in the media
Policy brief		<ul style="list-style-type: none"> • 3 policy briefs released

Table 2: SCRREEN2 Awareness Campaign KPIs

ACTION PLAN

The scheduling of communication and awareness raising actions will be laid out according to relevant milestones in the overall development of SCRREEN2 and to coincide with important outside events, such as the EU Raw Materials Week or other politically important events. The action plan will be reviewed from time in the course of the project, taking into the consideration also the KPIs, and updated, if deemed necessary

The various actions, responsible organisation and month of delivery are summarised in the actual Action Plan (Table 3 below) that will guide the implementation of WP8 and WP9.

No.	Title	Task	Responsible Organisation	Delivery Date
1	World Barometer adaptation to receive information	8.1	INTRAW	M2
2	Develop stakeholder contact database	8.2 & 8.3	LGI, all	M6
3	Feed information to World Barometer	All	All	Ad-hoc
4	Press releases	8.3	INTRAW, ENCO	TBD
5	SCRREEN2 video for Futuris	8.3	LGI	M23
6	One-minute film spots for social media	8.3	INTRAW	M18
7	Content production for social media campaigns (contents to be developed under Task 8.3)	8.3	LGI (All)	M5, M11, M17, M23, M29, M35
8	Social media campaigns implementation	8.1	INTRAW	M6, M12, M18, M24, M30, M36
9	Identification and contacting of influencers	8.1	INTRAW	M3
10	Providing Multipliers with information for dissemination (contents to be developed under Task 8.2)	8.2	INTRAW	M5, M11, M17, M23, M29, M35
11	Policy briefs	8.2	INTRAW	M11, M23, M35
12	Project Web-site landing page	8.1	LGI	M6
13	Project Web-site content supply and implementation (in co-ordination with Action 1)	All	LGI (All)	Ad-hoc
14	Infographics / visual elements	All	LGI	?
15	Web-/Seminars, workshops, focus groups (in collaboration with CoMMER/ERRIN)	8.2 & 8.3	INTRAW/LGI	M11, M23, M35
16	Identification of relevant conferences (updates)	8.1	All	M2, M12, M24
17	Measures targeted at young audiences (including online quiz/challenge)	8.3	EIT-RM	M3, M12, M24
18	Mapping of raw materials related museums and initiating school partnerships	8.3	INTRAW	M12, M24

Table 3: Timing of awareness raising and communication actions

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CONCLUSIONS

This report describes the concept and the strategies for multi-channel communication activities to be undertaken by SCRREEN2. These concern communication on general societal (critical) raw materials needs and challenges (WP8) and on the project itself (WP9). However, both aspects are closely linked and will share messages and modes of delivery.

A range of delivery modes are envisaged, namely a 'push-mode' (e.g. newsletters, policy briefs, EURONEWS video), a 'pull-mode' (e.g. information on the project Web-site and the INTRAW World Barometer Web-site), hybrid modes (e.g. notifications on 'pull' information), and interactive modes (e.g. focus groups in European regions, educational programmes for school-children).

While this strategy and its mode of delivery are outlined in this document with respect to scope and scheduling, political and economic developments over the course of the project duration may require flexibility and adaptation. In the interactive modes mentioned above, the SCRREEN2 team will also listen to the stakeholders and adapt the messages, the modes of delivery and the timing to evolving needs.

This strategy will be revised in project M18 and adapted or amended, if required.

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ANNEX – Stakeholder contact database

This will be initially an MS Excel table to be compiled from available information from projects, such as EO-Miners, MICA, MIREU etc. Also the SCRREEN communication database will be used. The work will be undertaken as part of Task 8.3.

Below is an image of what the resulting MS Excel table could look like.

Name	Web-site	Country	Type	interests/representation	Role	Contact email
PowerShift /Brot für die Welt	http://power-shift.de/	DE	AO	Aid organisation, transparency and democracy		
BEUC - The Consumer Voice in Europe	http://www.beuc.eu/	EU	CA	Consumers		safety@beuc.eu
European Investment Bank (EIB)	https://www.eib.org/	EU	FO	finance - public		press@eib.org
EEA - European Environmental Agency	https://www.eea.europa.eu/	EU	GO	Environment		
Umicore	https://www.umicore.com	BE	I	Industry - trade	Multiplier	
CEMBUREAU	http://www.cembureau.be	EU	IA	Industry - trade	Multiplier	
EERA	http://www.eera-recyclers.com	EU	IA	Industry - trade		
Eurometaux	http://www.eurometaux.org	EU	IA	Industry - trade	Multiplier	
EUROMINES	www.euromines.org	EU	IA	Industry - trade	Multiplier	
FertilisersEurope	http://fertilizerseurope.com	EU	IA	Industry - trade	Multiplier	
GDMB	www.gdmdb.de	INT	IA	Industry - trade		
IFA	http://www.fertilizer.org	INT	IA	Industry - trade	Multiplier	
INTERCARGO The International Association of Freight Forwarders	http://www.intercargo.org/	INT	IA	Industry - trade		
UEAPME	http://www.ueapme.com	EU	IA	Industry - trade	Multiplier	
Earthworks	www.earthworksaction.org	INT	NGO	Dedicated to protecting communities and the environment from negative impacts of minerals development		
EEB - European Environmental Bureau	http://www.eeb.org/	EU	NGO	Environment		carsten.wachholz@eeb.org
Ellen MacArthur Foundation	www.ellenmacarthurfoundation.org/	UK	NGO	Sustainability research		
Friends of the Earth	www.foei.org	INT	NGO	Grassroots environmental network with local organisations in 77 countries		
Friends of the Earth Finland		FIN	NGO	Grassroots movement		
Greenpeace	www.greenpeace.org	INT	NGO	A global campaigning organisation that aims to change peoples attitudes and behaviour, present in 41 countries		
Hnutí Duha / Friends of the Earth of the Czech Republic	http://www.hnutiduha.cz	CZR	NGO	Grassroots movement		
Human Rights Watch	https://www.hrw.org/	INT	NGO	Human rights		
IRMA Initiative for Responsible Mining Assurance	http://www.responsiblemining.net/		NGO	Social welfare		
Minerals Policy Institute (MPI)	http://eveonmining.wordpress.com	AUS	NGO	Social justice, human rights and ecologically sustainable development in extraction		
Mines and Communities (MAC)	www.minesandcommunities.org	INT	NGO	Support of local communities affected by mining		
Mining Watch Canada (MWC)	www.miningwatch.ca	CND	NGO	Initiative supported by environmental, social justice, aboriginal and labour organisations		
Oxfam International	http://www.oxfam.org/	INT	NGO	A confederation of 14 aid organisations working in over 100 countries		
Project Underground	www.moles.org	INT	NGO	Economic and environmental justice		
Sierra Club	www.sierraclub.org	USA, CND	NGO	Grassroots environmental organisation		
World-Wide Fund for Nature	www.panda.org	INT	NGO	Conservation issues, research and restoration of the environment		
EUROTEX	https://www.eurotex.org	EU	PO			
London Metals Exchange (LME)	http://www.lme.com/	INT	TO	Trade - market place		
IndustrieAll	http://www.industrial-union.org/	INT	TU	Trade union		
EIRMA - European Industrial Research Management Association	http://www.eirma.org/	EU		Industry R&D		
Eurocities	http://www.eurocities.eu/	EU		cities, waste prevention & recycling		hakon.jentoft@ren.oslo.kommune.no
ICLEI	http://www.iclei-europe.org/			cities, waste prevention & recycling		wolfgang.teubner@iclei.org
NAPP & KNAPK: The Local Greenland Hunters and Fishers Organization		DK		Indigeneous rights		
Network of Zero Waste Cities	https://www.zerowasteurope.eu/			cities, waste prevention & recycling		

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