



# ERA·MIN 2

RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS  
TO FOSTER CIRCULAR ECONOMY

**Acronym:** ERA-MIN 2

**Title:** Implement a European-wide coordination of research and innovation programs on raw materials to strengthen the industry competitiveness and the shift to a circular economy

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## DELIVERABLE D3.3

### *LIST OF PROJECTS AFTER STAGE 2 AND RANKING LIST*

**WP 3: Evaluation and proposal selection for the co-funded call**

**Task 3.3:** Evaluation stage 2: Full-Proposals

**Task Leaders:** MINECO and FCT

**Lead beneficiary:** FCT

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**ERA-MIN 2** comprises a progressive, pan-European network of 21 public research funding organisations from 18 countries/regions (Argentina, Belgium-Flanders, Brazil, Chile, Finland, France, Germany, Ireland, Italy, Poland, Portugal, Romania, Slovenia, South Africa, Spain, Spain-Castilla y León, Sweden and Turkey).

Built on the experience of the EU project ERA-MIN (2011-2015), **ERA-MIN 2** aims to enhance and strengthen the coordination of research and innovation programmes in the field of non-energy, non-agricultural raw materials (construction, industrial and metallic minerals) to support the European Innovation Partnership on Raw Materials, the EU Raw Materials Initiative and further develop the raw materials sector, in Europe and globally, through funding of transnational research and innovation (R&I) activities.

**ERA-MIN 2** will support demand driven research on primary and secondary resources, and substitution of critical raw materials under a circular economy approach, to give the opportunity to the R&I community to apply to world-wide coordinated funding, gaining access to leading knowledge and new markets, while reducing fragmentation of R&I funding across Europe and globally. This will be achieved through one EU co-funded call for R&I proposals in 2017 and two additional calls, in 2018 and in 2019, designed and developed specifically for the non-energy, non-agricultural raw materials sector.

### **Publishable summary**

This report details the ranking list of proposals after Stage 2 evaluation in the ERA-MIN Joint Call 2017.

The Call Steering Committee selected 16 full-proposals recommended for funding based on the ranking list and on the availability of public funds.

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## 1 INTRODUCTION

The focus of the ERA-NET Co-fund instrument under Horizon 2020 is the implementation of a single joint call for transnational collaborative research and innovation projects in selected areas, with high European added value and relevance for Horizon 2020. Therefore, the selected projects under the ERA-NET Co-fund joint call receive top-up funding from the Commission.

ERA-MIN 2 aims to support the European Innovation Partnership on Raw Materials, the EU Raw Materials Initiative and further develop the raw materials sector in Europe through funding of transnational research and innovation (R&I) activities.

ERA-MIN 2 is supporting the EU's transition to a Circular Economy by addressing topics which are aiming at retaining the value of the raw materials we use in products and returning them into the product cycle at the end of their use, keeping in mind the need for a sustainable and responsible industrial supply of primary resources to feed the circular economy.

ERA-MIN Joint Call 2017 was open on the 1<sup>st</sup> February 2017 with the participation of the 21 ERA-MIN 2 partners that have committed national and regional funds. The representatives of the ERA-MIN 2 Funding Organisations constitute the Call Steering Committee (CSC). The total call budget is approximately 15 million EUR, including the EU contribution to the Call. There was a two-stage submission procedure: pre-proposals and full proposals. The Joint Call Secretariat (JCS) is in charge of the operational implementation of the Call and handles the communication with the applicants and reviewers. The JCS is hosted by FCT (Foundation for Science and Technology), in Lisbon (Portugal) with the support of JUELICH (Germany), ANR (France) and MINECO (Spain).

The scope of the Joint Call was demand-driven research and innovation on primary and secondary resources of metallic, construction and industrial minerals and substitution of Critical Raw Materials, addressing one or several areas of the circular economy. The topics and sub-topics of the Call were:

1. Supply of raw materials from exploration and mining
  - 1.1 Exploration
  - 1.2 Mining operations
  - 1.3 Mine closure and reclamation
2. Design
  - 2.1 Product design for increased raw material efficiency
  - 2.2 Product design for reuse or extended durability of products
  - 2.3 Product design to promote recycling
  - 2.4 Product design for critical materials substitution
3. Processing, Production and Remanufacturing
  - 3.1 Increase resource efficiency in resource intensive production processes
  - 3.2 Increase resource efficiency through recycling of residues or remanufacturing
  - 3.3 Increase resource efficiency using information and communication technologies (ICT)
4. Recycling of End-of-Life Products
  - 4.1 End-of-life products collection and logistics
  - 4.2 End-of-life products pre-processing: pre-treatment, dismantling, sorting, characterisation
  - 4.3 Recovery of raw materials from End-of-life products
  - 4.4 Increase recycling of End-of-Life products through information and communication technologies (ICT)
5. Cross-cutting topics:
  - 5.1 New business models
  - 5.2. Improvement of methods or data for environmental impact assessment
  - 5.3 Social acceptance and trust/public perception of raw materials



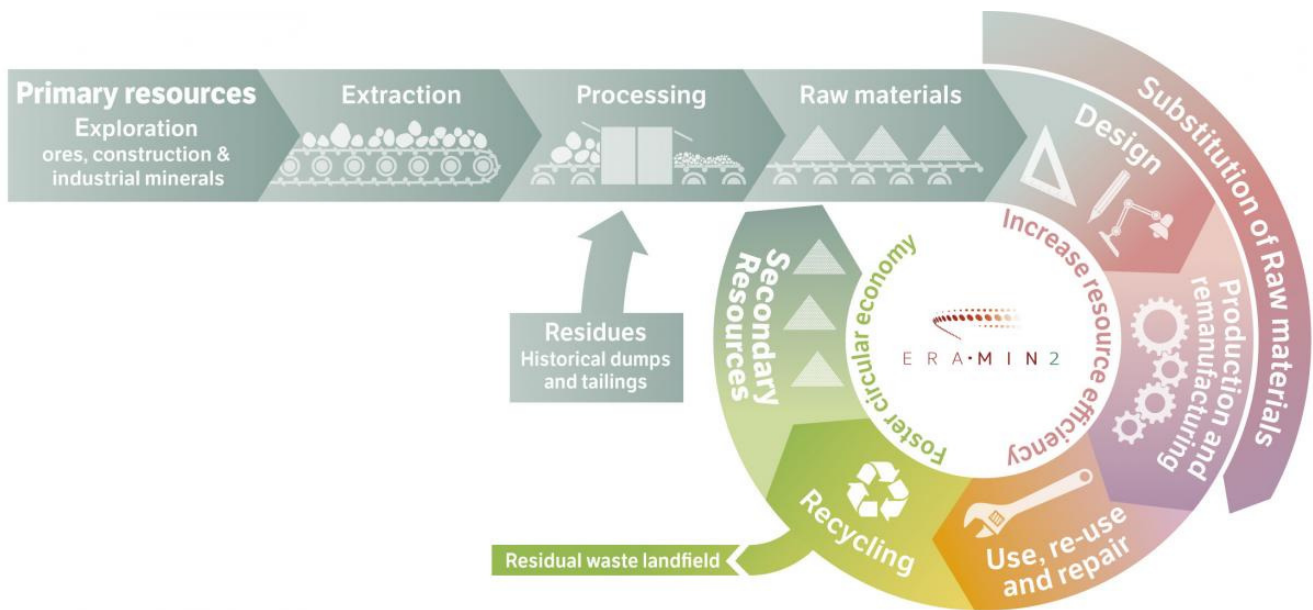


Figure 1 - Raw materials within the circular economy.

All the call documents are available at ERA-MIN 2 website ([www.era-min.eu/call](http://www.era-min.eu/call)).

Information on the objectives and expected impacts of the five topics are described in the “[Call text](#)”. The call topics were based on challenges and priorities identified in the ERA MIN Research Agenda and were in line with the integrated strategy proposed in the EU Raw Materials Initiative, the Strategic Implementation Plan of the European Innovation Partnership on Raw Materials, as well as with the national and regional priorities. Further information on the submission, evaluation, selection and funding procedures, eligibility criteria, topics and sub-topics covered by each funding organisation and the pre-proposal/full-proposal templates are described in the “[Guidelines for Applicants](#)”. The specific national and regional funding regulations and rules are listed in the “[National/Regional Funding regulations](#)”.

The evaluation procedures were designed to identify the best proposals in terms of scientific excellence, impact, quality and efficiency on the implementation, as thoroughly and accurately as possible; and to undertake the assessment in a fair, transparent and homogeneous way for all proposals submitted to the Call.

The quality assessment of the submitted proposals was performed by the Scientific Evaluation Board (SEB) composed of international independent expert reviewers.

SEB members did not submit or participate in proposals within this call and have signed declarations of confidentiality and of conflict of interest. The SEB members were selected for impartiality, free from conflicts of interests and under confidentiality agreements. Selection of the SEB members was in accordance with relevant Horizon 2020 guidance. All possible efforts were made to obtain an equal representation of academic institutions and industrial companies, all possible efforts were done to respect gender equity in the SEB. The SEB was headed by the chairperson and the vice-chairperson, identified among the nominated list, to accompany and to report on the overall process of selection.

Under stage 1, with deadline of 5<sup>th</sup> May 2017, 94 pre-proposals were submitted (Annex 1), involving 493 applicants and 27% enterprise participation. The total requested funding was almost 58 million EUR, four times higher than the total call budget of 15 million EUR, including the EU contribution. The stage 1 statistics were made public at ERA-MIN 2 website ([www.era-min.eu/publications](http://www.era-min.eu/publications)).

The submitted pre-proposals were subject to an eligibility check performed by the JCS and by the CSC to confirm compliance with EU and national/regional priorities, rules and regulations. In parallel, scientific assessments of pre-proposals were remotely performed by the SEB members coordinated by the Chair and the vice-chair.



The selection of pre-proposals for the Stage 2 was decided at the CSC consensus meeting. As a result, 36 pre-proposals were invited to submit a full proposal during Stage 2. After this selection, the total requested funding decreased to 25.8 million EUR but still exceeds the total call budget of 15 million EUR, including EU contribution.

During stage 2, by the deadline of 28<sup>th</sup> September 2017, 35 full-proposals were submitted, involving 186 applicants of which 33% enterprises. More information on stage 2 statistics is available at ERA-MIN 2 website ([www.era-min.eu/publications](http://www.era-min.eu/publications)).

The submitted full-proposals were subject to an eligibility check performed by the JCS and by the CSC to confirm compliance with national/regional priorities, rules and regulations before the start of the international independent peer-review evaluation process.

The 35 eligible full-proposals were scientifically evaluated based on three main evaluation criteria: 1) Scientific Excellence, 2) Impact and 3) Quality and Efficiency of the Implementation, as described in the Guidelines for Applicants. Each main evaluation criterion was rated using the 0-5 scale.

At the SEB meeting, a ranking list will be established for eligible full proposals with overall rating at, or above, 10 and with all the main evaluation criterion scores at, or above, 3. Proposals not meeting the thresholds were not recommended for funding by the SEB.

A CSC consensus meeting was organised to finalise Stage 2 and to elaborate the “joint selection list” of projects recommended for funding. The CSC strove to ensure that the top-ranked full-proposals are funded to the maximum extent possible. The selection of full-proposals was based on the ranking list of eligible full-proposals provided by the SEB meeting and the available national/regional budgets until exhaustion of public funds (EU contribution included).

All coordinators will receive feedback on the results of the evaluation process after Stage 2, including the Evaluation Summary Reports. The coordinators will be instructed to communicate the decisions to the consortium partners.

## 2 SCIENTIFIC ASSESSMENT AND RANKING LIST

Following the assignment of the full-proposals to the rapporteurs (SEB members) and external reviewers, and only after they have signed declarations of confidentiality and of conflict of interest, as well as the code of conduct, the evaluation of the proposals proceeded.

Each full-proposal was peer-reviewed by, at least 3 experts. The principal rapporteur has elaborated the draft consensus report before the SEB meeting.

The SEB meeting discussed each full-proposal assessment and have agreed by consensus on the overall rating. A ranking list of full proposals that meet the thresholds was endorsed by the SEB members (Table 1).

**Table 1 – Ranking list of full proposals recommended for funding by the Scientific Evaluation Board.**

Full-proposal Id	Full-proposal acronym	Full-proposal overall rating
72	AMTEG	14
142	MaXycle	14
86	BIOMIMIC	14
99	RecEOL	14
105	INSTAnT	14
83	Li+WATER	13
94	FLOW	13
34	LIGHTS	13
157	BASH-TREAT	13
179	Gold_Insight	12



40	Deasphor	12
87	MONAMIX	12
119	MINTECO	12
36	SUPERMET	12
89	REWO-SORT	12
90	MetRecycle	11
26	GAGREEN	11
77	CRESUS	11
32	MOSAS	11
51	MAGIC	11
168	SPiDER	11
130	ASTRID	11
76	i-RHEME	10
31	PROCuRE	10
144	GS2GR	10
70	Nano-C-emission	10

In particular, the ranking list of proposals included:

- 5 proposals scored 14
- 4 proposals scored 13
- 6 proposals scored 12
- 7 proposals scored 11
- 4 proposals scored 10

In total, the SEB have recommended 26 full proposals for funding with overall rating at or above 10 (Table 1).

Nine proposals have not met the threshold for overall score of 10 and were not recommended for funding by the SEB (Table 2).

**Table 2 – List of full proposals below threshold and not recommended for funding by the Scientific Evaluation Board.**

Full-proposal Id	Full-proposal acronym	Full-proposal overall rating
48	SuBMInd	9
74	TREASURE	9
80	ProMise	9
81	RECEMENT	9
171	MINERVA	9
92	RecycAgr	8
166	Expl-ORE	8
124	NOGAP	7
131	UPMIND	5

### 3 SELECTION OF FULL-PROPOSALS RECOMMENDED FOR FUNDING

The CSC consensus meeting selected the full-proposals recommended for funding based on a binding ranking list of eligible full-proposals provided by the SEB meeting and the available national/regional budgets until exhaustion of public funds (EU contribution included).



Sixteen proposals with scores between 14 and 11 could be selected and recommended for funding (Table 3).

**Table 3 – List of full proposals selected and recommended for funding by the Call Steering Committee.**

Full-proposal Id	Full-proposal acronym
72	AMTEG
142	MaXycle
86	BIOMIMIC
99	RecEOL
105	INSTAnT
83	Li+WATER
94	FLOW
34	LIGHTS
157	BASH-TREAT
179	Gold_Insight
40	Deasphor
87	MONAMIX
119	MINTECO
36	SUPERMET
89	REWO-SORT
90	MetRecycle

The requested funding of the 16 proposals is 12.3 million € and total costs are circa 16 million €. The feedback letters to project coordinators with peer-review reports will be sent by 15 January 2018.

#### **4 MAIN CONCLUSIONS/RESULTS**

Under ERA-MIN 2 Joint Call 2017, 94 pre-proposals were submitted, involving 493 applicants and 27% of enterprise participation. The total requested funding was almost 58 million EUR, four times higher than the total call budget was 15 million EUR, including the EU contribution.

After the selection of the 36 pre-proposals for stage 2, the total requested funding decreased to 25.8 million EUR.

On stage 2 submission, 35 full-proposals were submitted, involving 186 applicants of which 33 % enterprises.

After the scientific assessment of eligible full proposals, the international and independent SEB have established a ranking list of 26 proposals recommended for funding.

The CSC strove to ensure that the top-ranked full-proposals were funded to the maximum extent possible. The selection of full-proposals was based on the ranking list of eligible full-proposals provided by the SEB and the available national/regional budgets until exhaustion of public funds (EU contribution included).

As a result, 16 top-ranked proposals were recommended for funding by the CSC, involving 88 applicants of which 34 enterprises (38.6 %), requesting a total of 12.3 million € of public funds and with total costs of 16 million €.

An independent observer of the whole evaluation process reported that the outcome of the evaluation and selection procedures was both fair and transparent and in compliance with the EU co-funding rules.





## ANNEX 1 - Overview of the main call topic and participating countries of the 94 submitted pre-proposals

ID	Acronym	Main call topic	Participating countries
10	AISRA	1. Exploration and mining	TR, RO, RO, DE, SI
15	SUPREME	3. Processing, Production and Remanufacturing	SE, PL, RO, PT, ZA, PL, FR-ANR, NO, FI, ES, ES, FR-ANR, SE, ZA
18	HybMetal	1. Exploration and mining	TR, TR, RO, PT, TR
20	ReFRreSHCon	2. Design	ES, ES, ES, PT, BE, BR, AR
26	GAGREEN	2. Design	FR-ANR, FR-ANR, RO
27	USRMCTBCACP	3. Processing, Production and Remanufacturing	TR, IT, TR
30	REPHOMOD	4. Recycling of End-of-Life products	IT, TR
31	PROCuRE	3. Processing, Production and Remanufacturing	RO, PT, FR-ANR, RO, RO
32	MOSAS	4. Recycling of End-of-Life products	SE, DE, BR, DE, SE, DE
33	ECO-MIN	3. Processing, Production and Remanufacturing	FR-ANR, ES, ES, ZA, DE, DE, FI, ES, FR-ANR
34	LIGHTS	1. Exploration and mining	FR-ANR, PT, FR-ANR, DE, DE
35	Re-PVT	2. Design	ES, DE
36	SUPERMET	4. Recycling of End-of-Life products	FR-ANR, RO, FR, DE, DE
40	Deasphor	3. Processing, Production and Remanufacturing	PT, BR, IT, PL, RO, SE, TR, FR, PT, PL
42	MISA	1. Exploration and mining	FR-ANR, AR, FR-ANR, CL
48	SuBMInd	5. Cross-Cutting	PT, RO, BR, PT, RO, FI, RO, CL
49	ESPC-WASTE	4. Recycling of End-of-Life products	BR, BR, BR, BR, DE, DE, BR, SE, DE



50	M-LeRA	4. Recycling of End-of-Life products	BR, ES, ES
51	MAGIC	1. Exploration and mining	FI, DE, SE, FI, DE, ZA, SE
54	Earth RELOAD	1. Exploration and mining	IT, IT, IT, IT, ES
60	CraG	1. Exploration and mining	FR-ANR, FR-ANR, ZA, SWITZERLAND
61	IPHEW	4. Recycling of End-of-Life products	BR, IT, PT, PT, ES, BR, BR, IT, ES
62	RRAM	5. Cross-Cutting	BR, ES, PT, PT
66	InGaGe	3. Processing, Production and Remanufacturing	FR-ANR, FR-ANR, DE, FR-ANR, UNITED EMIRATES, IE, DE, DE, DE
67	EcoMine	3. Processing, Production and Remanufacturing	FR-ANR, FR-ANR, ZA, BE
69	DEEPImpact	1. Exploration and mining	RO, SE, RO, RO, PL
70	Nano-C-emission	2. Design	PT, ES, DE, PT, DE, ES
71	WMCYCLE	4. Recycling of End-of-Life products	PT, BR, DE, FR-ANR
72	AMTEG	1. Exploration and mining	DE, SE, DE, DE, ES, SE
73	FORECAST	3. Processing, Production and Remanufacturing	FR-ANR, RO, BR, BR, RO, FR
74	TREASURE	1. Exploration and mining	PL, RO, RO, PL, PT
76	i-RHEME	4. Recycling of End-of-Life products	SI, SI, FR-ANR, BR, BR
77	CRESUS	4. Recycling of End-of-Life products	FR, PT, SI, DE, DE, FR-ANR, FR, FR
78	EMBLEM	3. Processing, Production and Remanufacturing	PL, PL, ES, RO, RO, RO, RO
79	RECaWO	1. Exploration and mining	BR, IT, DE, BR
80	ProMise	3. Processing, Production and Remanufacturing	SE, RO, RO, DE, IT, DE, PT, other
81	RECEMENT	3. Processing, Production and Remanufacturing	TR, SI, SI, RO
83	Li+WATER	3. Processing, Production and Remanufacturing	AR, BE, SE



84	EURONETMIN	1. Exploration and mining	ES, IT, PT, PT
86	BIOMIMIC	4. Recycling of End-of-Life products	SE, DE, SE, SE, SE, IE, SE, SE, DE, IE, HUNGARY
87	MONAMIX	2. Design	RO, IT, RO, FR-ANR, FR-ANR
89	REWO-SORT	1. Exploration and mining	DE, CL, SE, DE
90	MetRecycle	3. Processing, Production and Remanufacturing	SI, SE, AR, FR-ANR, FR-ANR
92	RecycAgr	4. Recycling of End-of-Life products	TR, TR, TR, TR, TR, FI
94	FLOW	3. Processing, Production and Remanufacturing	SI, FI, IT
98	PHOSPY-ROADS	3. Processing, Production and Remanufacturing	ES, ES, ES, BR, PT
99	RecEOL	4. Recycling of End-of-Life products	IE, IE, BE, DE, ES, DE
100	DeepOre	1. Exploration and mining	PT, PT, PT, ES, ES
103	Zeo-Upcycling	4. Recycling of End-of-Life products	BR, AR, FR-ANR, ES, ES
104	EMCopper	1. Exploration and mining	BR, PT, ES, CL, CL
105	INSTAnT	4. Recycling of End-of-Life products	BE, DE, BE, DE, BE
106	TeSa	3. Processing, Production and Remanufacturing	DE, DE, PT, AR, AR, CL, DE, BR
110	Ecoblock	3. Processing, Production and Remanufacturing	BR, PT, FR-ANR, BR
112	IRV-Glass concrete	3. Processing, Production and Remanufacturing	BR, PT, ES, IT
113	IIMWHAC	1. Exploration and mining	PT, FR-ANR, AR, CL, FR-ANR
116	PRADA	5. Cross-Cutting	BR, BE, CL
117	BIORAREARTH	4. Recycling of End-of-Life products	BR, ES, IT, PT, BR, ES
119	MINTECO	3. Processing, Production and Remanufacturing	FR-ANR, RO, RO, TR, RO, PL, PL, FR-ANR
123	CICLA	3. Processing, Production and Remanufacturing	FR-ANR, ES



124	NOGAP	4. Recycling of End-of-Life products	BR, SI, IT
129	REE and other critical materials	3. Processing, Production and Remanufacturing	DE, BR, IT
130	ASTRID	1. Exploration and mining	DE, DE, DE, PL, RO, PL
131	UPMIND	2. Design	DE, DE, RO, TR
133	EER-RCP	2. Design	BR, IT, TR, BR, RO
135	SWAN	1. Exploration and mining	PT, ES, FR-ANR, FR-ANR, FR-ANR, CL, BR, BR, ES, PT, CL
137	CIRCULAROCK	3. Processing, Production and Remanufacturing	ES, PT, BR, PT, ES, TR
139	RECONSTRUCT	3. Processing, Production and Remanufacturing	DE, IT, DE, DE, DE
140	RIWVAP	3. Processing, Production and Remanufacturing	BR, BR, BR, BR, PT
142	MaXycle	3. Processing, Production and Remanufacturing	SI, SI, DE, DE, SE
143	New Niobium	3. Processing, Production and Remanufacturing	BR, BR, DE, FI
144	GS2GR	3. Processing, Production and Remanufacturing	IT, PT, BR, IT
145	InSiEEMaP	3. Processing, Production and Remanufacturing	SE, BR, TR, ZA, SE, TR, BR, ZA
146	RENEW	5. Cross-Cutting	CL, PT
148	INACCE	3. Processing, Production and Remanufacturing	BR, BR, IE, PT, ES, ES
151	MARGEO-3D	1. Exploration and mining	PT, PT, BR, ES, ES, PT
156	STORM	1. Exploration and mining	FR-ANR, CL, BR, FR-ANR, CL
157	BASH-TREAT	3. Processing, Production and Remanufacturing	DE, IT, SE, DE, DE
159	LinkWEEE	4. Recycling of End-of-Life products	FR, ZA
161	Plouton	1. Exploration and mining	PT, SI, CL, PT
166	Expl-ORE	1. Exploration and mining	ES, TR



168	SPiDER	2. Design	DE, IT, IT, DE, RO
169	HeavyNanoTech	4. Recycling of End-of-Life products	RO, RO, RO, TR
170	REETRONIC	4. Recycling of End-of-Life products	BR, BR, RO, IT, BR
171	MINERVA	3. Processing, Production and Remanufacturing	RO, RO, DE, DE, ES, RO
173	ChemComPolyTail	4. Recycling of End-of-Life products	AR, SI, SI, IT, AR
174	MMPPPF	3. Processing, Production and Remanufacturing	BR, DE, DE, PT
178	ZERO WASTE	1. Exploration and mining	SI, BR, SI, CL, SE, IT
179	Gold_Insight	1. Exploration and mining	IE, SE, SE
181	DARE	3. Processing, Production and Remanufacturing	PT, PT, PT, PT, ES
182	ECOWEE	4. Recycling of End-of-Life products	BR, DE, TR, DE
183	WFSGlass	3. Processing, Production and Remanufacturing	BR, BR, BR, FR-ANR, PT
184	NEMO	5. Cross-Cutting	RO, RO, IT
185	HRC Parts for Life in Agribusiness	3. Processing, Production and Remanufacturing	BR, BR, BR, SE, BE
188	MCFPF	3. Processing, Production and Remanufacturing	BR, BR, PT, DE, BR

