

Parallel session 1

Hard synergies

H2020 participants and projects

Porto, 4th of November 2019

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Objectives of parallel session 1

- Understanding the current state of Portuguese engagement with H2020 projects and their partners
- Discussing the usefulness of the analysis and the navigation and prioritisation criteria proposed
- Understanding the preferences for networking and developing future collaboration opportunities

Agenda morning session

MORNING SESSION (90´):

1. Introduction to the session (5')
2. Portuguese and regional participation in H2020 and PPPs (FoF+SPIRE) – Anabela Carvalho, ANI (15´+discussion 10´)
3. Assessing the potential for collaboration with H2020 projects and partners on Circular Manufacturing – Joaquín M. Azagra Caro 12h00 (15´)
4. Project level prioritisation (45´)
 - Presentation of main topics coming up from the 64 projects, organised by taxonomy (10')
 - Roundtable (30')
 - Closing and introduction to the afternoon (5´)

Agenda afternoon session

AFTERNOON SESSION (90´):

5. Country level and organisation level preferences (20´)

- Brief presentation of the countries and organisations involved in the projects (5')
- Roundtable (15')

6. Discussion on the relevance of additional selection criteria (40´)

- Brief presentation of the additional criteria and the results by criterion (10')
- Roundtable discussion (30')

7. Project level prioritisation for FoF and SPIRE projects (25´)

- Brief presentation of the main topics coming up from the 35 projects (10')
- Roundtable (15')

8. Presentation of results and wrap-up (5')

Topics of the projects

Project taxonomy

Project taxonomy	N° of projects
Advanced manufacturing and processing	8
Advanced materials	3
Biotechnology	1
Climate action, environment, resource	32
Europe in a changing world - inclusive,	1
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the	10
Information and Communication Technologies	2
Innovation in SMEs	2
Marie-Sklodowska-Curie Actions	1
Nanotechnologies	1
Smart, green and integrated transport	3
TOTAL	64

1. Climate action, environment, resources

1.1 CloseWEEE	Integrated solutions for pre-processing electronic equipment , closing the loop of post-consumer high-grade plastics, and advanced recovery of critical raw materials antimony and graphite
1.2 RESYNTEX	A new circular economy concept: from textile waste towards chemical and textile industries feedstock
1.3 CABRISS	Implementation of a Circular economy Based on Recycled, reused and recovered Indium, Silicon and Silver materials for photovoltaic and other applications
1.4 RESLAG	Turning waste from steel industry into a valuable low cost feedstock for energy intensive industry
1.5 BAMB	Buildings as Material Banks : Integrating Materials Passports with Reversible Building Design to Optimise Circular Industrial Value Chains
1.6 Ultroslag	A new integrated sustainable processing system for ' metal from slag ' recovery with higher technical, economic, energy and environmental performance than existing recovery processes.
1.7 Insuwaste	Recycling of hard-to-treat, post-consumer textile wastes and conversion to insulation material for construction industry using a novel conversion technology.
1.8 BIO- OXIDATED S2	BIO-OXIDATED S2: THE SOLUTION TO USE ORGANIC SLUDGE, NON-HAZARDOUS INDUSTRIAL WASTE AND URBAN GREEN WASTE TO MAKE BRICKS.
1.9 WHEY2VALUE	Whey2Value: valorising waste whey into high-value products
1.10 SCALEPHA	Industrial and commercial SCALE-up of Bio-on technology for the production of PHA polymers from sugar industries waste , co- and by-products
1.11 TyRec process	TyRec process: Whole Tyre Recycling within 30 Minutes with Molten Zinc – towards a circular economy

1. Climate action, environment, resources

1.12 Waste to Resource	Commercialisation of WarwickFBR™ technology which can recycle Mixed Plastic Waste into a hydrocarbon product, the Plaxx™
1.13 BLOSTER	Innovative biopesticides production: valorisation of endemic plants and green industrial residues
1.14 VirtuCrete	A new integrated process to valorise hazardous leaded glass from CRTs and transform it into highperformance geopolymer blocks - VirtuCrete
1.15 CLIPP PLUS	Manufacture and commercialization of high quality recycled polyolefin films using an innovative continuous extrusion recycling process assisted by sc-CO2 for printed plastic waste
1.16 ReDurComp	Novel business on DURable and COMPostable products based on REcycled plastic
1.17 RETYRE	Recycling waste tyres into devulcanized rubber
1.18 MSP-REFRAM	Multi-Stakeholder Platform for a Secure Supply of Refractory Metals in Europe
1.19 DECISIVE	A DECentralized management Scheme for Innovative Valorization of urban biowaste
1.20 URBANREC	New approaches for the valorisation of URBAN bulky waste into high added value REcycled products
1.21 REACMIN	RECYCLING ASBESTOS CONTAINING MATERIALS INTO NEW ECO-FRIENDLY SECONDARY RAW MATERIALS FOR FURTHER INDUSTRIAL PROCESSES
1.22 WHEY2VALUE	Whey2Value: Valorising waste whey into high-value products Follow-up of project 1.9

1. Climate action, environment, resources

1.23 Smart Rubber	SUSTAINABLE AND MARKET-ORIENTATED RECYCLING TECHNOLOGY FOR EPDM RUBBER
1.24 TANNOW	Reuse of Olive Mill Wastewater for producing new antioxidant tanning chemicals
1.25 Recyclatrack	100% recovery and RECYCLing of construction vehicle crAwler TRACKs into constituent rubber and steel for sustainable raw material supply
1.26 Cellulose recovery	High quality cellulose recovery from AHP: From used diaper to coatings additive
1.27 ERA-MIN 2	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
1.28 ECOBULK	Circular Process for Eco-Designed Bulky Products and Internal Car Parts
1.29 INTERCOME	INTERnational COMmercialization of innovative products based on MicroalgaE
1.30 CROCODILE	first of a kind commercial Compact system for the efficient Recovery Of CObalt Designed with novel Integrated LEading technologies
1.31 MUBIC	Mushroom and biogas production in a circular economy
1.32 R3FIBER	Eco-innovation in Composites Recycling for a Resource-Efficient Circular Economy

2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

2.1 AgroCycle	Sustainable techno-economic solutions for the agricultural value chain
2.2 InDIRECT	Direct and indirect biorefinery technologies for conversion of organic side-streams into multiple marketable products
2.3 URBIOFIN	Demonstration of an integrated innovative biorefinery for the transformation of Municipal Solid Waste (MSW) into new BioBased products (URBIOFIN)
4. UltraBio	Recovery of nutrients from agricultural residues and improved dewatering through ultrasound technology
2.5 FUNGITAINER	FUNGITAINER: Innovative Modular and Mobile Indoor Farm for Mushrooms and Substrate Production
2.6 GLOPACK	Granting society with LOw environmental impact innovative PACKaging
2.7 YPACK	HIGH PERFORMANCE POLYHYDROXYALKANOATES BASED PACKAGING TO MINIMISE FOOD WASTE
2.8 GoJelly	GoJelly - A gelatinous solution to plastic pollution
2.9 XTOne	Use of Extremophile Bacterium XT1 in Biological Approach to Promote Plant Growth and Tackle Pathogens
2.10 VegeaTextile	Innovative biomaterials production from wine industry waste

3. Advanced manufacturing and processing

3.1 Eco-Solar	Eco-Solar Factory - 40%plus eco-efficiency gains in the photovoltaic value chain with minimised resource and energy consumption by closed loop systems
3.2 VEEP	Cost-Effective Recycling of CDW in High Added Value Energy Efficient Prefabricated Concrete Components for Massive Retrofitting of our Built Environment
3.3 FENIX	Future business models for the Efficient recovery of Natural and Industrial secondary resources in eXtended supply chains contexts
3.4 ENSUREAL	Integrated cross-sectorial approach for environmentally sustainable and resource-efficient alumina production
3.5 DEMETO	Modular, scalable and high-performance DE-polymerization by MicrowavE TechnolOgy
3.6 SCALER	Scaling European Resources with Industrial Symbiosis
3.7 PreMa	Energy efficient, primary production of manganese ferroalloys through the application of novel energy systems in the drying and pre-heating of furnace feed materials .
3.8 iCAREPLAST	Integrated Catalytic Recycling of Plastic Residues Into Added-Value Chemicals

4. Advanced materials

4.1 AceForm4.0	Activating Value Chains for EU leadership in FORMulation Manufacturing 4.0
4.2 DECOAT	Recycling of coated and painted textile and plastic materials
4.3 Repair3D	Recycling and Repurposing of Plastic Waste for Advanced 3D Printing Applications

5. Smart, green and integrated transport

5.1 RESET	Re-use of Thermoplastic Composite
5.2 HYTECHCYCLING	New technologies and strategies for fuel cells and hydrogen technologies in the phase of recycling and dismantling
5.3 ECOMOBI	Eco-friendly Modification of Bitumen (ECOMOBI). Recycling end of life tyres into an efficient bitumen modifier

6. ICT

6.1 CloudiFacturing	Cloudification of Production Engineering for Predictive Digital Manufacturing
6.2 Madaster	Towards a circular economy: Eliminate waste through an open platform that facilitates material passports

7. Biotech

7.1 TCR	Feasibility Assessment on Thermal Catalytical Reforming
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8. Europe in a changing world

8.1 Wallco	Wallco quality modular solid wood furniture
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9. Marie-Curie

9.1 FISHSkin	Developing Fish Skin as a sustainable raw material for the fashion industry
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10. Nanotech

10.1 Project NGR M	Market Entry Feasibility Project for Next Generation Rubber
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11. Innovation in SMEs

Usewaste	Patented modified-immobilized enzymes used in the production of biodiesel at commercial scales using any type of feedstock.
MOGU floor	Natural-Grown Flooring for Circular Buildings

Country level and organisation level preferences

Country level

Country abbreviation	Country name	N° of participant
AR	Argentina	1
AT	Austria	14
BA	Bosnia and Herzegovina	1
BE	Belgium	49
BG	Bulgaria	1
BR	Brazil	1
CH	Switzerland	10
CL	Chile	1
CN	China	3
CY	Cyprus	1
CZ	Czech Republic	3
DE	Germany	46
DK	Denmark	4
EL	Greece	16
ES	Spain	81
FI	Finland	12
FR	France	47
HK	Hong Kong	1
HR	Croatia	2
HU	Hungary	6

IE	Ireland	7
IL	Israel	6
IS	Iceland	2
IT	Italy	54
JP	Japan	1
LT	Lithuania	3
LU	Luxembourg	1
LV	Latvia	1
MA	Morocco	1
MK	Republic of Macedonia	1
NL	Netherlands	25
NO	Norway	12
PL	Poland	9
PT	Portugal	14
RO	Romania	2
RS	Serbia	1
SE	Sweden	12
SI	Slovenia	8
SK	Slovakia	1
TR	Turkey	7
UK	United Kingdom	38
ZA	South Africa	4
Total participants		510

Other selection criteria for partner identification

1. Social proximity: degree of experience

Organization name	Country	Organization type	Number of projects
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.	Germany	Research organisation	9
Stiftelsen Sintef	Norway	Research organisation	8
Sintef AS	Norway	Research organisation	6
National Technical University of Athens - NTUA	Greece	Higher or secondary education	5
Norges Teknisk-Naturvitenskapelige Universitet NTNU	Norway	Higher or secondary education	6
Exergy Ltd	United Kingdom	Private for profit	4
Iris Technology Solutions, Sociedad Limitada	Spain	Private for profit	3
Average Top SP			6
Average Non-Top SP			1

2. Institutional proximity: degree of trust

Organization name	Country	Organization type	% of Portugal Centro and Norte partners
Avecom	Belgium	Private for profit	21%
Company for Software Production, Trade and Services Prajm Apps Llc Skopje	Former Yugoslav Republic of Macedonia (FYROM)	Private for profit	21%
European Food Information Council	Belgium	Others	21%
Intertek Belgium	Belgium	Private for profit	21%
Intertek Iberica Spain SA	Spain	Private for profit	21%
Intertek Italia SPA	Italy	Private for profit	21%
Kpad Ltd	United Kingdom	Private for profit	21%
Linpac Packaging Pravia, SA	Spain	Private for profit	21%
Migros Ticaret Anonim Sirketi	Turkey	Private for profit	21%
Nova Id Fct - Associacao para a Inovacao e Desenvolvimento da Fct	Portugal	Research organisation	21%
Nuevas Tecnologias para el Desarrollo de Packaging y Productos Agroalimentarios con Componente Plastica SL	Spain	Private for profit	21%
Tutti Pasta SA	Spain	Private for profit	21%
Unio Corporacio Alimentaria, SCCL	Spain	Private for profit	21%
Wageningen University	Netherlands	Higher or secondary education	21%
Average Top IP			21%
Average Non-Top IP			1%

3. Organisational proximity: degree of similarity of partnership structure

Organization	Country	Organization type	Average % private for profit	Average % research organisations
Urbaser S.A.	Spain	Private for profit	55%	21%
Campden BRI Magyarorszag Nonprofit Korlatolt Felelossegu Tarsasag	Hungary	Research organisation	58%	21%
Coopbox Group Spa	Italy	Private for profit	58%	21%
Creme Software Ltd	Ireland	Private for profit	58%	21%
Ecozept France	France	Private for profit	58%	21%
Ecozept GbR	Germany	Private for profit	58%	21%
Furst-Plast	France	Private for profit	58%	21%
Innoven Srl.	Italy	Private for profit	58%	21%
Institut National de la Recherche Agronomique	France	Research organisation	58%	21%
Instituto de Biologia Experimental e Tecnologica	Portugal	Research organisation	58%	21%
La Vie Est Belle BVBA	Belgium	Private for profit	58%	21%
Pack4food	Belgium	Others	58%	21%
Soredab SAS	France	Private for profit	58%	21%
Symetris	France	Private for profit	58%	21%
Tageos	France	Private for profit	58%	21%
Universita degli Studi di Modena e Reggio Emilia	Italy	Higher or secondary education	58%	21%
Universite de Montpellier	France	Higher or secondary education	58%	21%
Vlevico	Belgium	Private for profit	58%	21%
Average Top OP			58%	21%
Average Non-Top OP			56%	21%

4. Geographical proximity

Organization name	Country	Organization type	Average distance to Centro and Norte (km)
Fundacao para a Ciencia e a Tecnologia	Portugal	Public body	252
Centro para el Desarrollo Tecnologico Industrial.	Spain	Public body	345
Ministerio de Economia, Industria y Competitividad	Spain	Public body	345
Instituto para la Competitividad Empresarial de Castilla y Leon	Spain	Public body	331
Fundacion Cartif	Spain	Research organisation	331
Universidad de Burgos	Spain	Higher or secondary education	331
Optimizacion Orientada a la Sostenibilidad SL	Spain	Private for profit	467
Tecnalía Ventures SL	Spain	Private for profit	500
Devan-Micropolis S.A.	Portugal	Private for profit	83
Ferroatlantica I & D SL	Spain	Private for profit	233
Silicio Ferrosolar SL	Spain	Private for profit	233
Average Top GP			314
Average Non-Top GP			1,586



5. Power: combination of leadership and fundraising capacity

Organization name	Country	Organization type	Number of projects coordinated	Average fundraising
Industrias Mecanicas Alcudia SA	Spain	Private for profit	1	3,262
Sintef AS	Norway	Research organisation	3	969
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.	Germany	Research organisation	3	804
Advanced Substrate Technologies AS	DK	Private for profit	1	2,590
Algaenergy SA	Spain	Private for profit	1	2,426
Acies Bio Biotehnoske Raziskave in Razvoj Doo	Slovenia	Private for profit	2	1,309
Mogu SRL	Italy	Private for profit	1	2,148
Nextchem SRL	Italy	Private for profit	1	2,108
Commissariat à l'Energie Atomique et aux Energies Alternatives	France	Research organisation	2	795
Agroindustrial Kimatec SL	Spain	Private for profit	1	1,851
Agencia Estatal Consejo Superior de Investigaciones Cientificas	Spain	Research organisation	2	742
Average Top PC			2	1,727
Average Non-Top PC			0	379

6. Proximity and power: combine all the above

Organization name	Country	Organization type	Social proximity	Institutional proximity	Organisational proximity	Geographical proximity	Power	Proximity & Power
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.	Germany	Research organisation	1.0	0.2	0.9	0.6	0.9	1.0
Agencia Estatal Consejo Superior de Investigaciones Cientificas	Spain	Research organisation	0.4	0.7	0.9	0.8	0.7	0.9
Industrias Mecanicas Alcudia SA	Spain	Private for profit	0.3	0.5	0.9	0.7	1.0	0.9
Ecofrag-Mentation Europe Sl	Spain	Private for profit	0.5	0.8	0.9	0.8	0.3	0.9
Sintef AS	Norway	Research organisation	0.7	0.2	0.9	0.5	1.0	0.9
Blueplasma Power SL	Spain	Private for profit	0.5	0.8	0.9	0.8	0.2	0.9
Aimplas - Asociacion de Investigacion de Materiales Plasticos y Conexas	Spain	Research organisation	0.6	0.4	1.0	0.8	0.3	0.8
Urbaser S.A.	Spain	Private for profit	0.3	0.6	1.0	0.8	0.5	0.8
Nova Id Fct - Associacao para a Inovacao e Desenvolvimento da Fct	Portugal	Research organisation	0.4	1.0	0.8	0.9	0.1	0.8
Eurospuma Sociedade Industrial de Espumas Sinteticas SA	Portugal	Private for profit	0.5	0.8	0.9	0.9	0.1	0.8
Average Top PP			0.5	0.6	0.9	0.8	0.5	0.9
Average Non-Top PP			0.3	0.3	0.7	0.6	0.1	0.5