

Projects

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2021



CEMMPRE

Centre for Mechanical Engineering,
Materials and Processes

Projects

1. 3D-2-4D - From 3D to 4D printing: Can bacterial cellulose make the bridge? Ref. POCI-01-0145-FEDER-030767 (07-2018/07-2021)
2. 3DCOMPOCER - Additive Manufacturing of Ceramic Matrix Composites for Mechanical Parts. Ref. POCI-01-0247-FEDER- 047060 (09-2020/06-2023)
3. 4Additive - Implementation of Advanced, Portuguese Additive Manufacturing Systems on Portuguese Industry: Systems, Tools, Software and Training. Ref. POCI-01-0247-FEDER-021944 (01-2017/06-2021)
4. 4DComposite - Intelligent molding of 4D components based on carbon-embedded shape memory alloys pre-impregnated with thermoplastic. Ref. POCI-01-0247-FEDER-033758 (09-2018/07-2022)
5. Add.Additive - Add Additive Manufacturing to Portuguese industry. Ref. POCI-01-0247-FEDER-024533 (04-2018/02-2022)
6. AddPowder - New filaments based on metallic powders for additive manufacturing. Ref. POCI-01-0247-FEDER-039910 (08-2019/06-2022)
7. Advanced Metal-Diamond Composites for thermal. Ref. PTDC/CTM-COM/30416/2017 (06-2018/06-2021)
8. ANIMATE - Advanced Numerical Modelling and Experimental Research on Turbulent and Transitional Flows with Applications to Chemical, Power, Automotive and Aeroengine Industries (10-2019/10-2022)
9. ARTTE - Advanced Robotics/Tool Technology, and Eco-Efficiency. Ref. POCI-01-0247-FEDER-037457 (08-2018/02-2022)
10. ATRITO-0- *A sinergia entre texturização e revestimentos auto-lubrificantes para contactos mecânicos energeticamente mais eficientes e mais amigos do ambiente*, Ref. POCI-01-0145-FEDER-030446 (01-2020/12-2023)
11. BEIRINOV - *Sustentabilidade na cadeia de valor de produtos enchidos*. Ref. CENTRO-01-0247-FEDER-113492 (07-2021/06-2023)
12. BIOPAINT - *Tinta de base natural, energeticamente eficiente e com propriedades funcionais distintas direcionada ao setor automóvel*. Ref. POCI-01-0247-FEDER-072629 (03-2021/06-2023)
13. BIORECOVER - Development of an innovative sustainable strategy for selective biorecover of critical raw materials from Primary and Secondary sources. Ref.^a H2020-SC5-2018-2-821096 (06-2019/05-2023)
14. BioTack - Development of biobased tackifying agents for polyurethane reactive adhesives Ref.^a PSE2020-063 (04-2020/03-2022)*
15. CATARACTUS - Development of a medical device based on ultrasounds for objective cataract characterization and optimal phacoemulsification energy evaluation. Reference: POCI-01-0145-FEDER-028758 (06-2018/04-2022)

16. CirculaPlas: Desenvolvimento de filmes plásticos com recurso exclusivo a material reciclado. Ref. POCI-01-0247-FEDER-047739 (01-2021/06-2023)
17. CoatNOvirus - *Revestimentos anti-microbianos / víricos para aplicações em meio hospitalar*. Ref. POCI-01-02B7-FEDER-069996 (11-2020/06-2021)
18. COBOTIS: Human-robot interaction for collaborative robotics. Ref. PTDC/EME-EME/32595/2017 (06-2018/05-2021)
19. COMP4UAVs - Components for unmanned aerial vehicles (UAVs) produced by additive manufacturing. Ref. POCI-01-0145-FEDER-031296 (07-2018/07-2022)
20. Covid Porta Aberta - *Sistema de Apoio à Abertura de Portas*. Ref. CENTRO-01-02B7-FEDER-059035 (06-2020/02-2021)
21. CrackFree - Towards self-repairing metallic materials. Ref. POCI-01-0145-FEFER-029101 (07-2018/07-2021)
22. CROWN - Characterization of the mechanics. Ref. PSE-2020-035 (12-2020/10-2021)*
23. DERMOTRONICS - *Eletrónica Epidérmica e Vestível para Biomonitorização*. Ref. CENTRO-01-0145-FEDER-031784 (05-2018/04-2022)
24. DigitalTouchAuto - *Desenvolvimento de soluções avançadas e interactivas para painéis interiores de automóvel* (11-2020/05-2023)
25. DISPERLIVE - OMNOVA. Ref.^a DITS09-2018-056 (01-2019/03-2021)*
26. DUST+ - *Compósitos inovadores com incorporação de pó resultante das lamas do corte de pedra calcária*. Ref.^a POCI-01-0247-FEDER-47076 (01-2021/06-2023)
27. easyPET-CT - *Aumento da capacidade de imagem do easy PET.3D*. Ref. PTDC/EMDEMD/2140/2020
28. EUREKA SMART, AddDies- Advanced Manufacturing Technologies for new dies generation. Ref. POCI-01-0247-FEDER-042536 (04-2019/03-2022)
29. European network of FURan based chemicals and materials FOR a Sustainable development. Ref. CA18220 (11-2019/11-2023)
30. EZ-SHEET - Easy-to-use strategy for the accurate material description in sheet metal forming. Ref. PTDC/EME-EME/31216/2017 (07-2018/07-2022)
31. F4F – Forest For Future. Ref.^a CENTRO-08-5864-FSE-000031 (07-2020/06-2023)
32. FAMTiC - Improvements on the fatigue behavior of additive manufacturing titanium alloys components. Ref. PTDC/EME-EME/28789/2017 (06-2018/06-2022)
33. Fields4Ever - Microbiome of potato fields contaminated with plant-parasitic nematodes. Ref. 947084 EU Framework Programme for Research and Innovation Euratom (03-2021/12-2021)
34. Friction 4.0 - *Modelação e Controlo do Calor Gerado por Fricção*. Ref- POCI-01-0145-FEDER-032089 (07-2018/07-2022)
35. FuturePharma - Pharmaceutical supply chain of the future. Ref. PTDC/EME-SIS/6019/2020 (03-2021/03-2024)
36. Greenfil- *Produção de filamentos biodegradáveis*. Ref. POCI-01-0247-FEDER-033146 (09-2018/09-2021)

- 37.Greenpack - GEPACK - Development of new packaging with high incorporation of recycled PET and biodegradable polymers. Ref. PSE2020-061 (10-2020/09-2022)*
- 38.GreenTribos - Marie Skłodowska-Curie grant agreement No. 860246 (01-2020/12-2023)
- 39.HardRings - Revestimentos duros de DLC (ta-C) para a próxima geração de anéis de pistões de motores de combustão interna. Ref. PTDC/EME-APL/29122/2017 (06-2018/06-2022)
- 40.High2RPaper- Papel reciclado de elevada resistência com incorporação de pasta crua de rejeitos. Ref.^a POCI-01-0249-FEDER-0044871 (01-2021/06-2023)
- 41.Highlight - Novas soluções para moldes de injeção com ultra alto brilho Ref.^a POCI-01_0247_FEDER_047156. 1.6. (01-2021/06-2023)
- 42.i9LOGO: Inovação no desenvolvimento e produção de Logotipos para o automóvel. Ref.^a POCI-01-0247-FEDER-072607 (03-2021/06-2023)
- 43.ifDAMAGEelse: Modelling and numerical simulation of damage in metallic sheets: anisotropic behaviour and tension-compression asymmetry coupled approach for formability prediction. Ref. PTDC/EME-EME/30592/2017 (POCI-01-0145-FEDER-030592) (06-2018/05-2022)
- 44.INJECT4PAIN - New biomaterials and their applications in innovative injectable formulations for controlled drug release (02-2020/02-2022)*
- 45.Integradde - Intelligent data-driven pipeline for the manufacturing of certified metal parts through Direct Energy Deposition processes. Ref. Horizon 2020 Grant agreement ID: 820776 (10-2018/03-2023)
- 46.IoShad -Development of a new generation of metal and nitride thin films deposited by controlling and/or preventing the atomic shadowing effect. Ref. PTDC/CTM-REF/1464/2021 (01-2022/12-2024)
- 47.iPET – Sistema PET inteligente para imagiologia pré-clínica. Ref. CENTRO-01-0247-FEDER-039880 (09-2019/11-2022)
- 48.LubSysTech - *Sistema integrado de gestão da lubrificação e análise de condição baseado na monitorização da qualidade e desempenho de lubrificantes industriais.* Ref. (POCI-01-0247-FEDER-033673 (09-2018/09-2021)
- 49.MCTOOL21 - Manufacturing of cutting tools for the 21st century: from nanoscale, material design to numerical process simulation. Ref. POCI-01-0247-FEDER-045940 (04-2020/03-2023)
- 50.Microminer– Microbiological technologies in mining and recycling of high-tech critical metals. POCI-01-0145-FEDER-03182 (PTDC/CTA-AMB/31820/2017) (07-2018/07-2022)
- 51.MULTIMAT3D - Multimaterial joints by additive manufacturing technology. IPL/2021/MultiMat3D (09-2021/09-2022)
- 52.NANO4BIO - *Nanopartículas plasmónicas para deteção biológica.* Ref. POCI-01-0145-FEDER-032299 (07-2018/06-2021)
- 53.NanoTiC - Nanojoining of Titanium to Ceramics. Ref. POCI-01-0145-FEFER-031579 (07-2018/07-2021)
- 54.On-Surf - Mobilizar competências tecnológicas em Engenharia de Superfícies. Ref.^a POCI-01-0247-FEDER-024521 (11-2018/10-2021)

55. ORAiDEA - Desen implantes dentários _PSE (06-2018/05-2021)*
56. PAMI - Iniciativa Portuguesa em Fabricação Aditiva. Ref.^a CENTRO-01-0145-FEDER-022158 (02-2017/04-2021)
57. Penelope: Closed-loop digital pipeline for a flexible and modular manufacturing of large components. Ref. Horizon 2020 Grant agreement ID: 958303 (10-2020/09-2024)
58. Polycel- Novel cellulose-based copolymers via controlled polymerization techniques ROCI-029742 (07-2018/07-2021)
59. POLYELECTRON - Large Volume Controlled Radical Polymerization Powered by Electricity. Ref.^a PTDC/EQU-EQU/2686/2020 (09-2021/08-2024)
60. PRODUTECH4S&C - PRODUTECH SUSTENTÁVEL & CIRCULAR - Soluções inovadoras, sustentáveis e circulares com impacto na fileira das tecnologias de produção. Ref.^a POCI-01-0247-FEDER-046102 (07-2020/06-2023)
61. RDFORMING - Robust Design of Sheet Metal Forming Processes to Reduce Productivity Losses. Ref.^a POCI-01-0145-FEDER-031243 (06-2018/05-2021)
62. RECYFILM - *Reciclagem de filmes multicamada utilizados em embalagem*. Ref.^a POCI-01-0247-FEDER-047006 (09-2018/09-2022)
63. REVIVING - revisiting mine tailings to innovate metals biorecovery. ERA-MIN2, n 67. Ref.^a ERA-MIN/0007/2019 (11-2020/10-2023)
64. S4PLAST- Sustainable Plastics Advanced Solutions. Ref. POCI-01-0247-FEDER-046089 (01-2020/06-2023)
65. Science DiabetICC Footwear - *Desenvolvimento de calçado terapêutico inovador para pé diabético*. Ref. POCI-01-0247-FEDER-039784 (08-2019/06-2023)
66. ShellMould - *Um novo conceito de molde integrador para maximizar a produção de embalagens de vidro - afirmação no mercado internacional*. Ref.^a POCI-01-0247-FEDER-039913 (10-2019/09-2022)
67. Sim2AM: Computational methods for optimizing the SLM additive manufacturing process. Ref. PTDC/EME-EME/31657/2017 (CENTRO-01-0145-FEDER-031657) (06-2018/06-2021)
68. SMART Display - Haptic touchscreens display "life front" Ref. POCI-01-0247-FEDER-047153 (02-2021/06-2023)
69. SMARTLUB - Smart self-lubricant coatings with controlled release of the lubricious agent for high temperature applications. Ref. POCI-01-0145-FEDER-031807 (07-2018/07-2021)
70. Soft4Sense - Smart Surfaces for Reliable Tooling Integration (01-2020/03-2023)
71. StarchFire - *Desenvolvimento de retardante de chama através de fontes renováveis. Código do projeto*. Ref. POCI-01-0247-FEDER-069481 (01-2021/03-2023)
72. STOP-Strategic Thin-films Opposed to Pandemia – SARS – CoV-2. Ref.69683 - *Quadro Temporário relativo a medidas de auxílio estatal em apoio da economia no atual contexto do surto de Covid-19 e da Portaria n.º 96 de 18 de abril* (08-2020/06-2021)
73. SWeld- *Soldabilidade em estado sólido de sistemas heterogéneos à base de aço inoxidável*. Ref. IPL/2021/SSWeld (09-2021/09-2022)
74. *Técnicas de Caracterização*. Ref.^a PSE-021-121 (09-2021/10-2021)*

75. TherMechChar-Xsteels - *Rumo ao projeto e à conformação virtuais: Caracterização termomecânica de aços de alto desempenho através de medidas de campo global e do desenvolvimento de um ensaio único*. Ref.^a CENTRO-01-0145-FEDER-029713 (06-2018/05-2022)
76. TOOLING4G - Advanced Tools for Smart Manufacturing (PPS3). Ref. POCI-01-0247-FEDER-024516 (09-2017/10-2021)
77. TOOLMAX - *Gestão e Maximização do Tempo de Vida da Ferramenta de Corte*. Ref. POCI-01-0247-FEDER-039884 (07-2019/06-2022)
78. TRIBOS+ - Joint European Master of Tribology of Surfaces and Interfaces. Ref. 599264-EPP-1-2018-1-SI-EPPKA1-JMD-MOB (09-2018/08/2024)
79. ViVe - *Viseira Ventilada para protecção individual*. Ref. POCI-01-02B7-FEDER-069880 (10-2020/08-2021)
80. WOW - Wireless biOmonitoring stickers and smart bed architecture: toWards Untethered Patients. Ref. POCI-01-0247-FEDER-045913 (04-2020/04-2023)