



### Horizon 2020: Status 2019 Advanced materials & Nanomaterials

Innovation on Nanomaterials & Advanced Materials technologies is highest priority at H2020



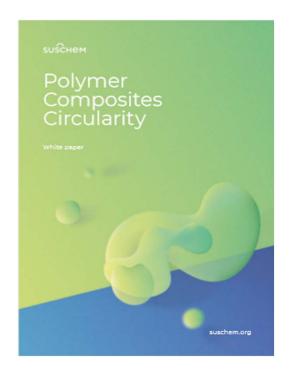
7/16/2019



## **SusChem Advanced Materials Technologies: Context**

Innovation on Advanced Materials technologies. Most recent SusChem activities





**SUSCHEM – Advanced Materials Technologies** 

7/16/2019

# SusChem: Consolidating SIRA towards Horizon Europe



# Towards a New SusChem SIRA Workshop



May 16-17 Brussels, Belgium SusChem technology pillar: ADVANCED MATERIALS TECHNOLOGIES

**Expected Impact of Advanced Materials technologies** 

Innovation in materials is closely connected with the United Nations Sustainable development goals (SDGs): SDG9 Industry Innovation and Infrastructure, SDG12 Responsible consumption and production and SDG13 Climate action. Nonetheless, impact is also expected on SDG6 Clean water and sanitation, SDG7 Affordable and Clean Energy, SDG8 Decent work and Economic Growth as well as SDG11 Sustainable cities and communities.



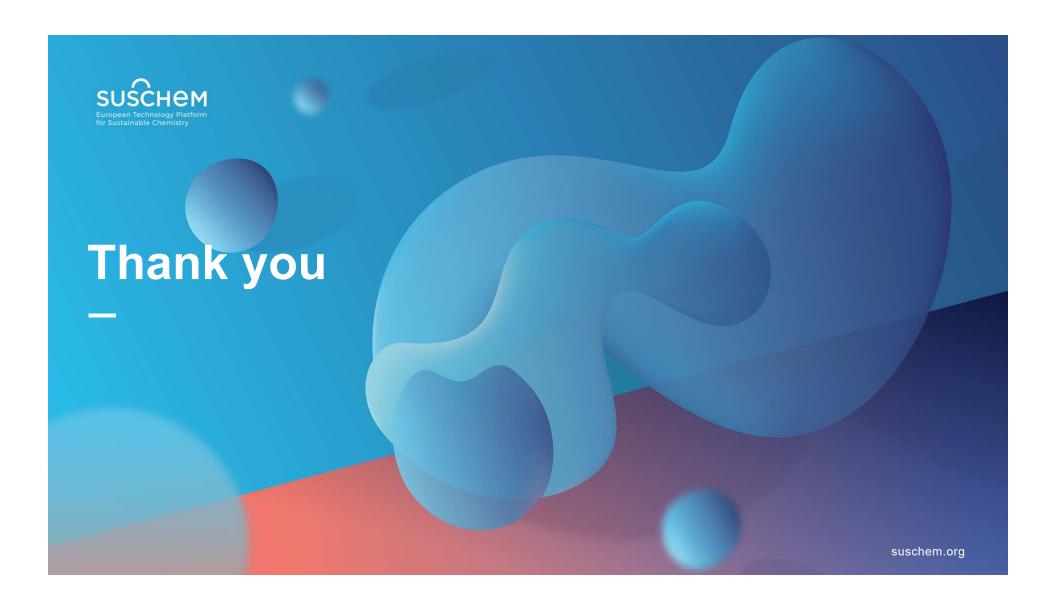
Figure 1: Preliminary assessment; potential impact of Advanced Materials on UN SDGs Source: <u>UN Sustainable Development Goals Knowledge Platform</u>

Materials-related technology priorities are also expected to be deeply linked with Horizon Europe Research and Innovation Pillar 2 - Global Challenges and Industrial competitiveness (in particular with clusters Health; Digital and Industry; Climate, Energy and Mobility and Food and natural resources). Links with the structure of Pillar 3 - Open Innovation and Pillar 1 - 'Open Science' remain to be confirmed.



Figure 2: HEU - structure elements (P-1, P-2 & P-3); Source: Commission proposal for Horizon Europe

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### **Advanced Materials and Nanomaterials: Emerging interactions**

Advanced materials for healthy aging and wellbeing

Smart materials in medicine, food, agriculture, farming

Key enabling technologies interactions

Molecular machines coupling material chemistry to mechanical responses MOTORIC amplification

Energy capture, storage and conversion for clean mobility



### Horizon 2020 Advanced Materials Technologies: Status 2019

Innovation on Nanomaterials & Advanced Materials technologies is highest priority at H2020. Some relevant examples

InnovaConcrete: Innovative materials and techniques for the conservation of 20th century concrete-based cultural heritage

https://cordis.europa.eu/project/rcn/212836/factsheet/en

MEMBER: Advanced MEMBranes and membrane assisted procEsses for pre- and post- combustion CO2 captuRe

https://cordis.europa.eu/project/rcn/212844/factsheet/en

CARMOF: New process for efficient CO2 capture by innovative adsorbents based on modified carbon nanotubes and MOF materials

https://cordis.europa.eu/project/rcn/212340/factsheet/en

LISA: Lithium sulphur for SAfe road electrification

https://cordis.europa.eu/project/rcn/219988/factsheet/en