



# European Commission's Group of Chief Scientific Advisors

**Scientific Opinion - 'Environmental and  
Health Risks of Microplastic Pollution'**



**#SAMGroup\_EU**

**72nd MEETING OF THE EFSA  
ADVISORY FORUM**

*Research and  
Innovation*

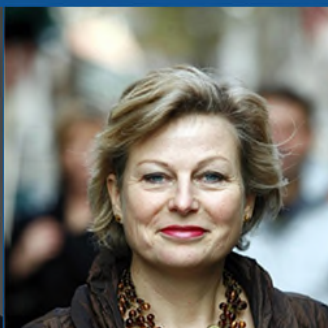
**4 July 2019**



## Group of Chief Scientific Advisors



**Janusz Bujnicki**  
Biology  
(Poland)



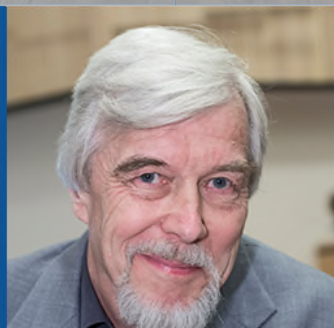
**Pearl Dykstra**  
Sociology  
(Netherlands)



**Elvira Fortunato**  
Materials Science  
(Portugal)



**Nicole Grobert**  
Chemistry  
(DE/UK)



**Rolf-Dieter Heuer**  
Physics  
(Germany)



**Carina Keskitalo**  
Political Sciences  
(Sweden)



**Sir Paul Nurse**  
Genetics  
(UK)



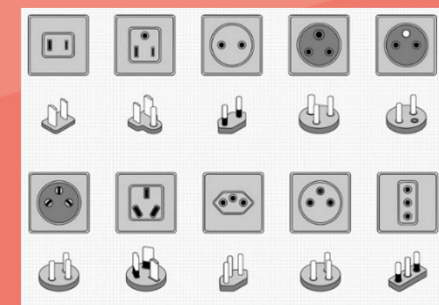
## Group of Chief Scientific Advisors



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### Expert Scientists

evidence review  
all published data  
policy options

### Group of Chief Scientific Advisors

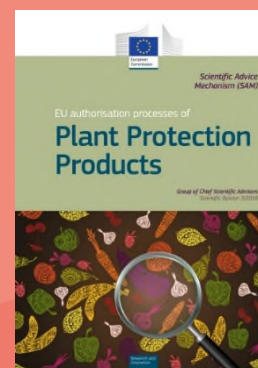
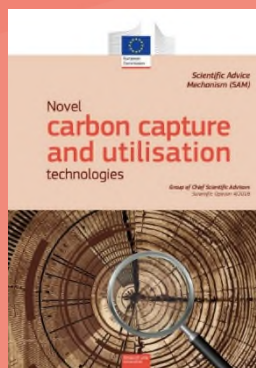
evidence synthesis  
and recommendations

### SAM Unit: Intrinsic connectors

monitor the needs  
of the advisee,  
policy context,  
timing, format, relevance



# GROUP OF CHIEF SCIENTIFIC ADVISORS



Research and  
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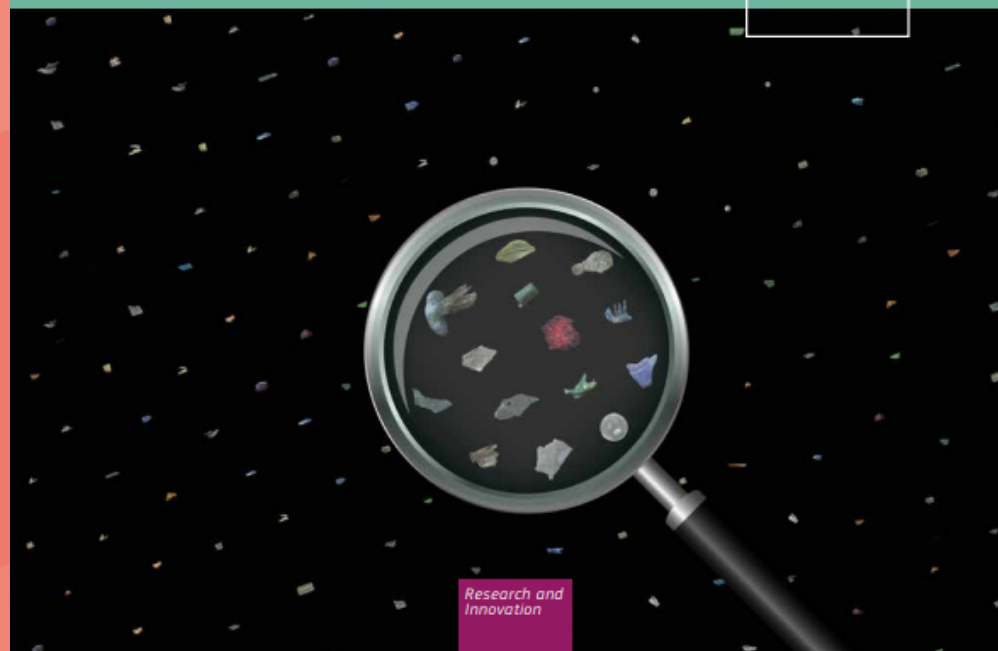


*Scientific Advice  
Mechanism (SAM)*

Environmental and Health Risks of  
**Microplastic Pollution**

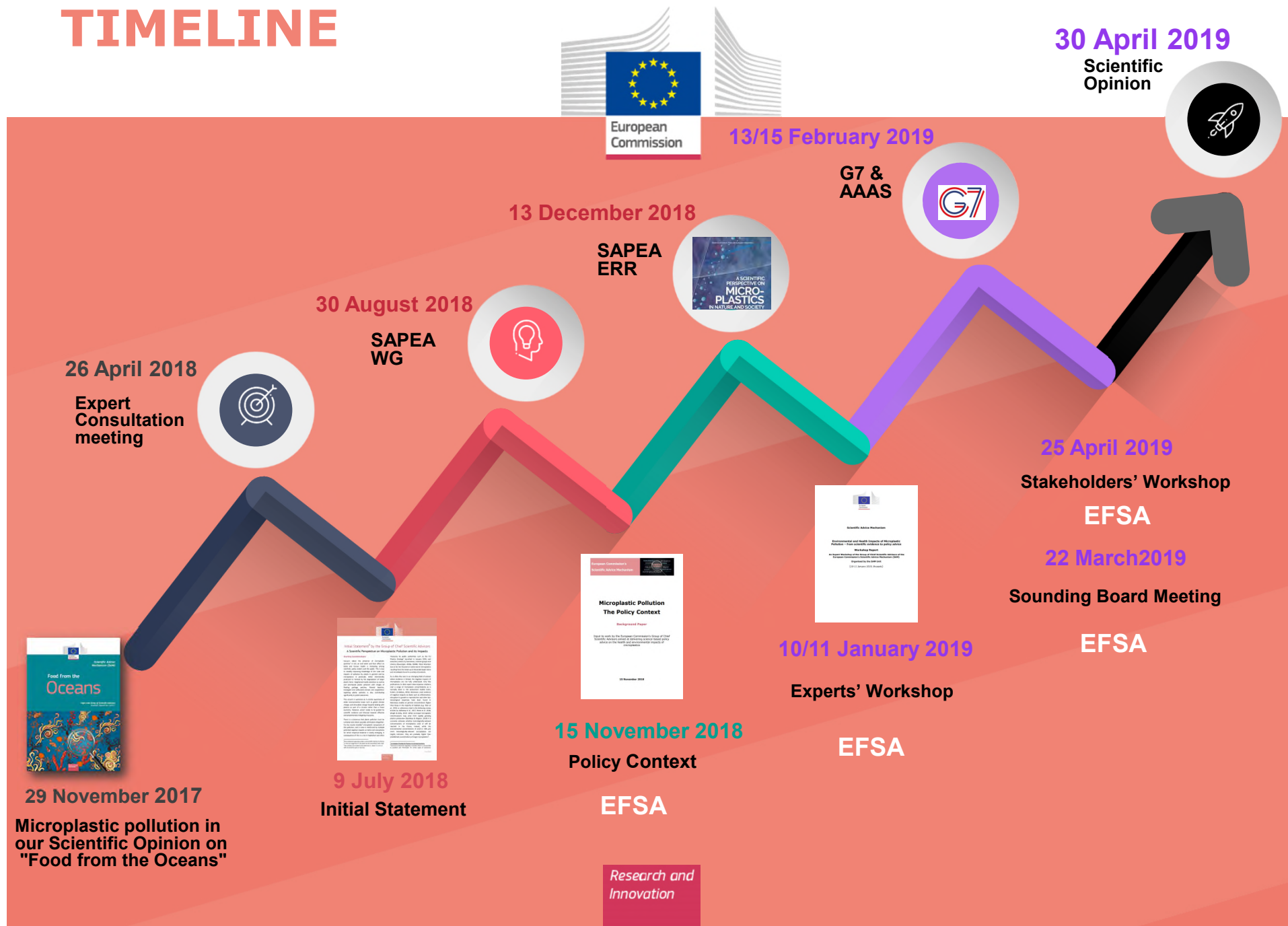
*Group of Chief Scientific Advisors  
Scientific Opinion 6/2019*

Independent  
**Expert  
Report**



*Research and  
Innovation*

# TIMELINE





# EVIDENCE REVIEW REPORT

## 10 JAN 2019



**Professor Bart Koelmans**, University of Wageningen (Netherlands), Chair  
**Associate Professor Dr Sabine Pahl**, University of Plymouth (United Kingdom), Vice-Chair

**Professor Thomas Backhaus**, University of Gothenburg (Sweden)

**Dr Filipa Bessa**, University of Coimbra (Portugal)

**Professor Geert van Calster**, KU Leuven (Belgium)

**Dr Nadja Contzen**, University of Groningen (Netherlands)

**Richard Cronin**, Water and Marine Advisory Unit (Ireland)

**Professor Tamara Galloway**, University of Exeter (United Kingdom)

**Professor Andy Hart**, Newcastle University (United Kingdom)

**Dr Lesley Henderson**, Brunel University London (United Kingdom)

**Assistant Professor Dr Gabriela Kalčíková**, University of Ljubljana (Slovenia)

**Professor Frank Kelly**, King's College London (United Kingdom)

**Dr Bartłomiej Kolodziejczyk**, Stockholm University (Sweden)

**Professor Elda Marku**, University of Tirana (Albania)

**Professor Wouter Poortinga**, Cardiff University (Wales, United Kingdom)

**Professor Matthias Rillig**, Freie University Berlin (Germany)

**Associate Professor Dr Erik Van Sebille**, Utrecht University (Netherlands)

**Professor Linda Steg**, University of Groningen (Netherlands)

**Professor Josef Steidl**, Czech Technical University Prague (Czech Republic)

**Dr Julia Steinhorst**, Institute for Advanced Sustainability Studies (Germany)

**Associate Professor Dr Kristian Syberg**, Roskilde University (Denmark)

**Professor Richard Thompson**, University of Plymouth (United Kingdom)

**Associate Professor Dr Martin Wagner**, Norwegian University of Science and Technology

**Professor Annemarie van Wezel**, KWR Watercycle Research Institute and Utrecht University

**Dr Kayleigh Wyles**, University of Surrey (United Kingdom)

**Dr Stephanie Wright**, King's College London (United Kingdom)



# RECOMMENDATIONS



## 1

- **Broaden policy cover to prevent and reduce microplastic pollution**
  - Microplastics in water, air and soil
  - Nanoplastics - knowledge gaps (presence, concentration, and behavior)
  - Substance- and context-specific; uses posing the highest potential risks





## 2

- **Address wider socio-economic and trade-off implications of microplastic pollution policy actions**
  - Political and socio-economic feasibility (trade-offs, substitution strategies/alternatives, life-cycle assessments, and cost-benefit calculations)
  - A catalyst for other environment and health protection issues

# RECOMMENDATIONS



## 3

- **Promote global cooperation, high-quality scientific exchange and policy coherence**
  - Global scientific platform
  - Shared and cross-border access to standardised data
  - Quality and pertinence of scientific studies of microplastics (detection, measurement and analysis, risk/impact assessment methodologies)
  - Experimental procedures and meta data; dose/response and no-effect studies



# European Commission's Group of Chief Scientific Advisors

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**4 July 2019, Brussels**

*Thank you*

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Innovation