



SusChem Stakeholders Event 2019

Sustainable Chemistry to solve global challenges

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State of play Horizon (1)

A sustainable, fair and **prosperous** future for **people** and **planet** based on European values.

- Tackling **climate change** (35 % budgetary target)
- Helping to achieve **Sustainable Development Goals**
- Boosting the Union's **competitiveness and growth**



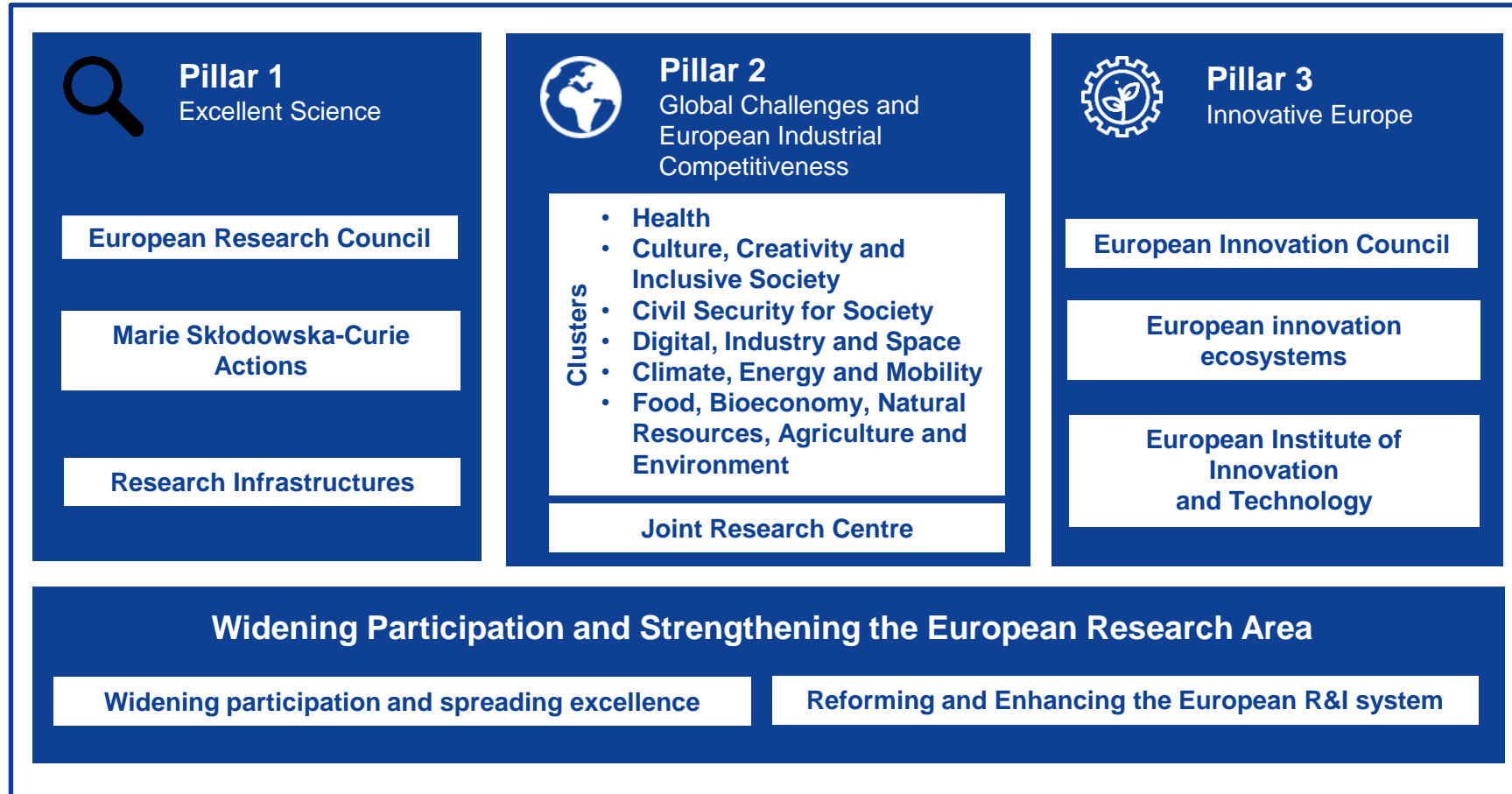
Credits: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

State of play Horizon (2)



Quelle: Eurostat 2019

State of play Horizon (3)

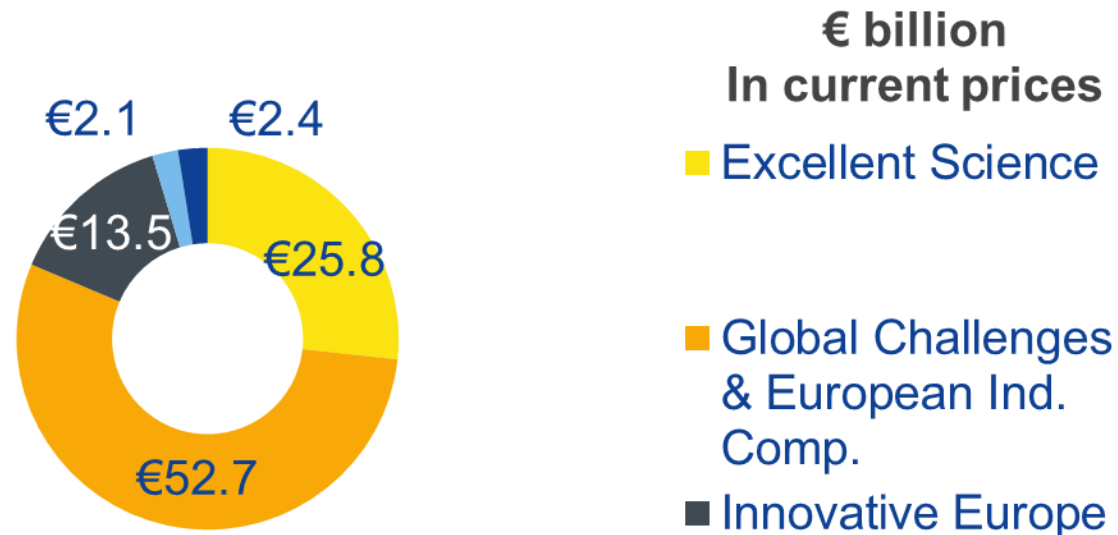


State of play Horizon (4)

Agreed: 3,3% « widening »; pillar II: < 10% Missions & < 50 partnerships; > 70 % EIC for SME; Admin < 5%

Council: no figure, space « commensurate » with H 2020 », 10bn bio-economy

EP: € 120 bn, 15,94% for pillar II



Sustainable Chemistry (1)

Figure 12.1: Consumption of toxic chemicals, by hazardousness, EU-28, 2004–2017
(million tonnes)

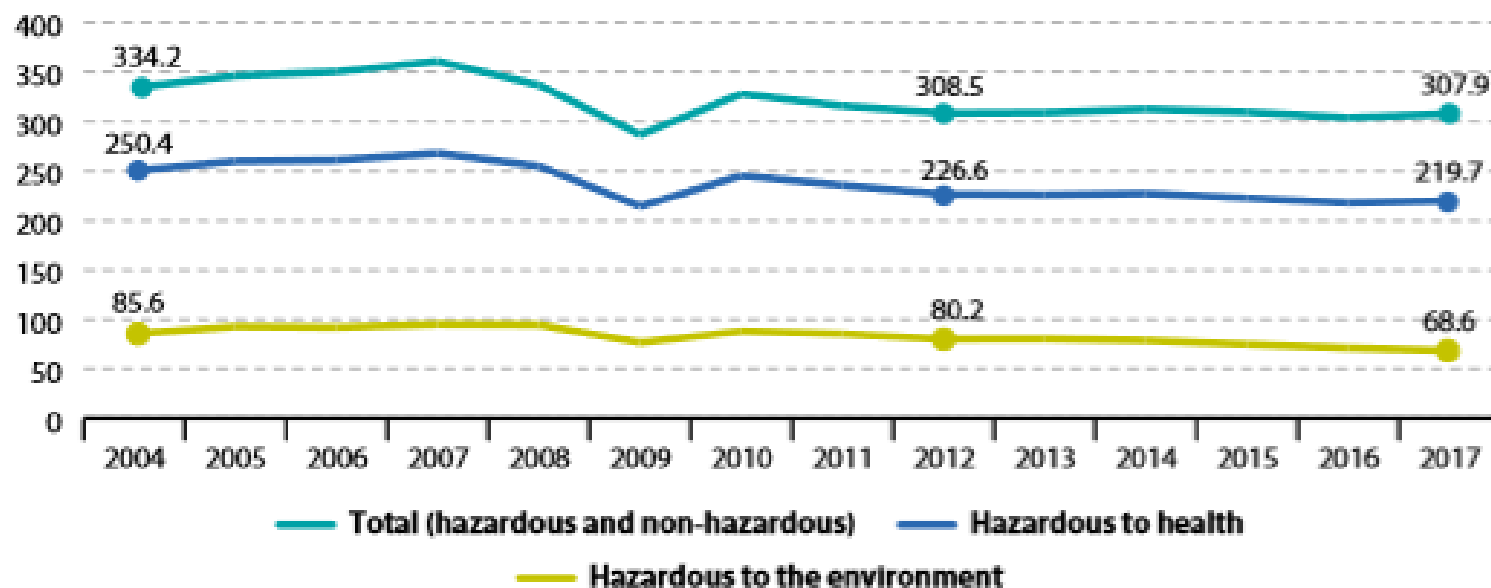
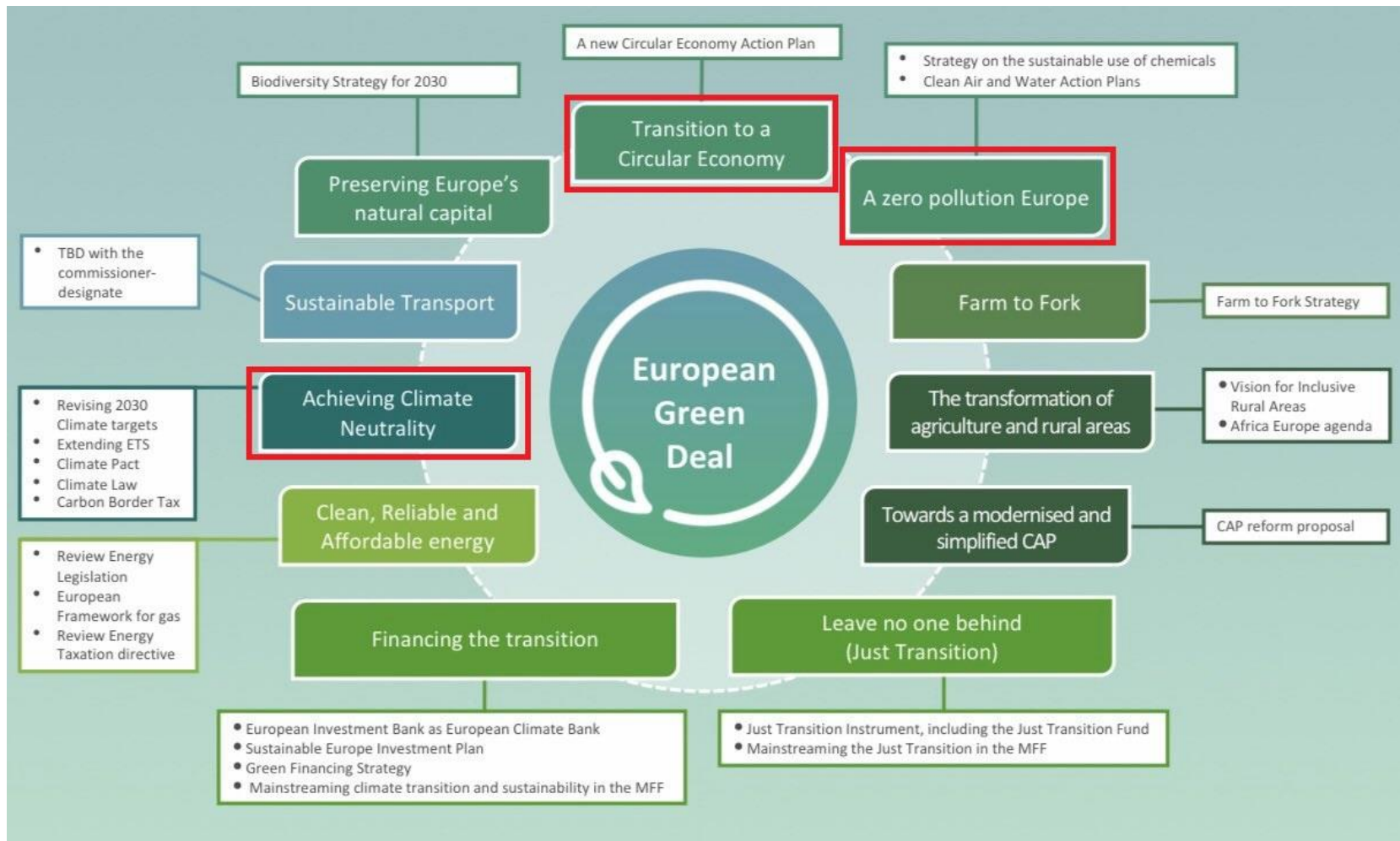


Table 12.3: Compound annual growth rate (CAGR) of the consumption of toxic chemicals, EU

Chemicals	EU aggregate	Period	Growth rate
Hazardous to health	EU-28	2004–2017	– 1.0% per year
	EU-28	2012–2017	– 0.6% per year
Hazardous to the environment	EU-28	2004–2017	– 1.7% per year
	EU-28	2012–2017	– 3.1% per year

Sustainable Chemistry (2)



Sustainable Chemistry (3)

Potential priorities under the Digital, Industry and Space Cluster

SusChem Priorities	European Green Deal	Horizon Europe
Low Carbon Economy	Achieving Climate Neutrality	<ul style="list-style-type: none">• Closing the carbon cycle for fuel and chemical production by means of new catalytic systems• Breakthrough technologies for decarbonised energy and feedstock
Circular Economy and Resource Efficiency	Transition to a Circular Economy	<ul style="list-style-type: none">• Electrified valorisation of waste (plastics) into added-value industrial streams
Environmental and Human Health	A zero pollution Europe	<ul style="list-style-type: none">• Potential of new membrane materials to filter polluted water/air• Innovation in clean energy systems, with a higher share on renewables

Sustainable Chemistry (4)

Potential priorities under the Digital, Industry and Space Cluster

SusChem Priorities	Fit for Digital Age	Horizon Europe
<ul style="list-style-type: none"> Laboratory 4.0 – Digital R&D Cognitive plants Predictive maintenance Process Analytical technologies 	<p>Long-term strategy for Europe's industrial future</p>	<p>Key Digital Technologies & Advanced Computing</p> <ul style="list-style-type: none"> Trusted electronic components and systems Innovative computing architectures Broader development of supercomputing supplies
<ul style="list-style-type: none"> Advanced Data Data sharing platforms Digital support operators/human-process interfaces 	<p>European approach to AI</p> <p>Digital Services Act</p>	<p>Artificial Intelligence and Robotics</p> <ul style="list-style-type: none"> AI-based systems to support human tasks AI and automation in complex, safety- and time-critical systems
<ul style="list-style-type: none"> Distributed ledger technologies Coordination of connected processes 	<p>Technological Sovereignty</p>	<p>Next generation internet & Advanced Computing and Big Data</p> <ul style="list-style-type: none"> Trustworthy internet technologies Secured interoperability across sectors Cybersecurity