

Dimension	<i>Research and development</i>
Sub-dimension	<i>R&D activity</i>
Indicator name	<i>R2: AI R&D activity score</i>
Rationale	It assesses the level of involvement in AI-related R&D, by weighting the presence of AI economic agents in a geographic area with the amount of AI activity they develop.
Definition	<p>Number of R&D activities developed by agents, computed as the sum of the fractional count for all the economic agents included in a geographical area. The R&D activities considered are: (i) patent applications, (ii) frontier research publications (i.e., publication in top AI journals and conferences), and (iii) EU-funded projects (only when analysing the EU focus, to avoid an EU-centric biased view).</p> <p>To account for collaboration in the same activity by several economic agents, the fractional count of the activity corresponding to one economic agent is computed as 1 divided by the number of participating agents in that activity, so that the sum of all fractions adds up to 1.</p>
Unit of measurement	Real positive number
Geographical coverage	World
Geographical granularity	Macro areas (top countries plus world regions), EU27 Member States
Breakdown	Type of R&D activity: patent applications, frontier research publications, and EU-funded projects FP7-H2020 (where relevant)
Data source(s)	JRC AI TES Dataset 2020, available at https://data.jrc.ec.europa.eu/collection/id-0126 See description of the dataset in indicator G1.
Reference date	Period 2009-2020 (one value for the entire period)
Known limitations	
References and Comments	Reference: Samoili S., Righi R., Cardona M., López Cobo M., Vázquez-Prada Baillet M., and De Prato G., TES analysis of AI Worldwide Ecosystem in 2009-2018, EUR 30109 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-16661-0, doi:10.2760/85212, JRC120106. https://publications.jrc.ec.europa.eu/repository/handle/JRC120106