



GOVERNMENT BUDGET ALLOCATIONS FOR R&D, 2022 – 2023

The share of government budget allocations for R&D in GDP in 2022 amounted to 0.65%

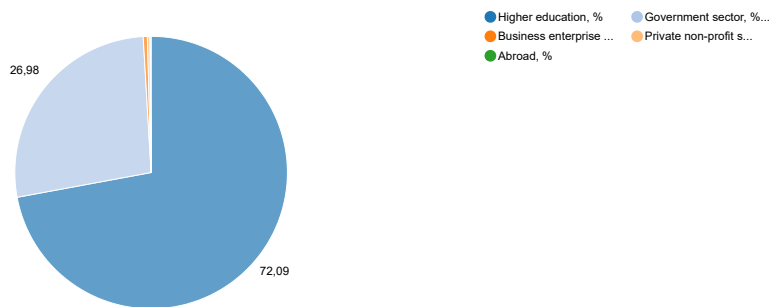
In 2022, in the Republic of Croatia, 3.35 billion kuna of the government budget funds were spent on R&D activity.

The biggest share of the government budget funds for R&D in 2022 was allocated for the higher education sector (72.09%). The government sector followed with 26.98%, while the lowest share was allocated for the private non-profit sector (0.31%) and abroad (0.13%).

Regarding the socio-economic objectives, the highest amount (63.70%) of the government budget allocations for R&D in 2022 was spent on the objective General advancement of knowledge: R&D financed from general university funds (GUF). The objective General advancement of knowledge: R&D financed from sources other than GUF followed with 23.01%, while the smallest amount was spent on the objective Exploration and exploitation of space (0.01%).

The planned government budget allocations for R&D in 2023 (according to the adopted government budget for 2023) amounted to 3.78 billion kuna (0.50 billion euros), of which over half of funds (60.65%) were intended for the objective General advancement of knowledge: R&D financed from general university funds (GUF).

G-1 SHARE OF GOVERNMENT BUDGET ALLOCATIONS FOR R&D, BY SECTORS (ACTUAL PAYMENTS), 2022

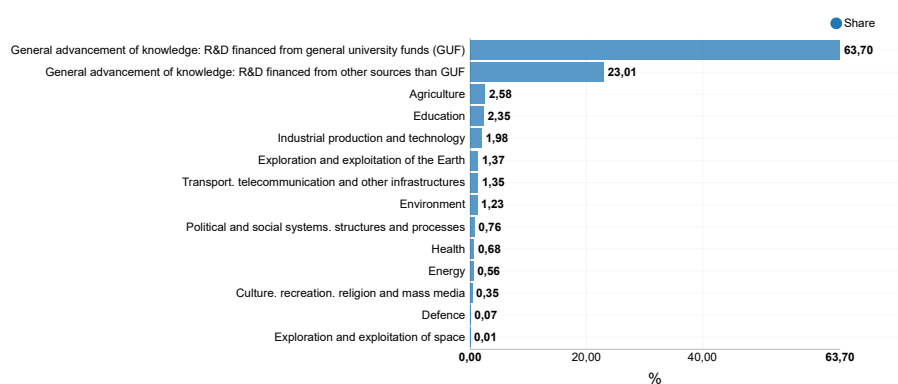


1 GOVERNMENT BUDGET ALLOCATIONS FOR R&D, BY SOCIO-ECONOMIC OBJECTIVES AND SECTORS (ACTUAL PAYMENTS), 2022

Thousand kuna

	Total	Business enterprise sector	Government sector	Higher education	Private non-profit sector	Abroad
Total	3 353 745	16 455	904 895	2 417 567	10 345	4 483
Exploration and exploitation of the Earth	46 004	-	22 247	22 196	1 561	-
Environment	41 373	45	32 062	9 266	-	-
Exploration and exploitation of space	170	-	-	170	-	-
Transport, telecommunication and other infrastructures	45 313	362	1 702	43 249	-	-
Energy	18 937	769	-	18 168	-	-
Industrial production and technology	66 381	1 813	-	64 547	21	-
Health	22 916	1 100	15 121	6 695	-	-
Agriculture	86 611	1 089	79 158	6 327	37	-
Education	78 652	919	1 786	75 947	-	-
Culture, recreation, religion and mass media	11 770	-	4 178	7 592	-	-
Political and social systems, structures and processes	25 497	521	21 633	3 323	20	-
General advancement of knowledge: R&D financed from GUF	2 136 222	-	61 989	2 074 233	-	-
Natural sciences	183 858	-	30 546	153 312	-	-
Engineering	550 534	-	-	550 534	-	-
Biomedicine and health	488 543	-	9 311	479 232	-	-
Biotechnical sciences	158 437	-	4 489	153 948	-	-
Social sciences	447 081	-	9 216	437 865	-	-
Humanities	307 769	-	8 427	299 342	-	-
General advancement of knowledge: R&D financed from sources other than GUF	771 544	7 482	665 019	85 854	8 706	4 483
Natural sciences	335 085	195	326 409	7 386	-	1 095
Engineering	28 800	4 577	58	22 539	850	776
Biomedicine and health	122 452	74	101 752	19 457	319	850
Biotechnical sciences	57 344	2 119	48 047	6 250	579	349
Social sciences	118 147	517	98 761	18 068	-	801
Humanities	109 716	-	89 992	12 154	6 958	612
Defence	2 355	2 355	-	-	-	-

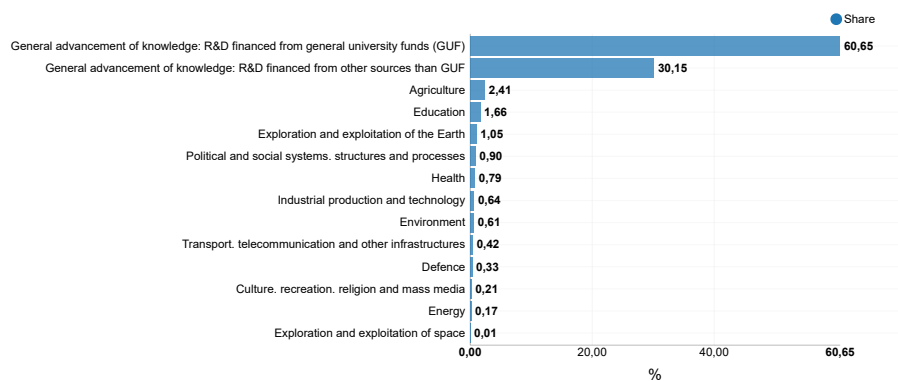
G-2 SHARE OF GOVERNMENT BUDGET ALLOCATIONS FOR R&D, BY SOCIO-ECONOMIC OBJECTIVES IN TOTAL GOVERNMENT BUDGET ALLOCATIONS FOR R&D (ACTUAL PAYMENTS), 2022



2 GOVERNMENT BUDGET ALLOCATIONS FOR R&D (ADOPTED BUDGET FOR 2023), BY SOCIO-ECONOMIC OBJECTIVES, 2023

	Total	
	Thousand kuna	Thousand euro
Total	3 782 833	502 068
Exploration and exploitation of the Earth	39 603	5 256
Environment	23 294	3 092
Exploration and exploitation of space	221	29
Transport, telecommunication and other infrastructures	15 843	2 103
Energy	6 367	845
Industrial production and technology	24 467	3 247
Health	29 928	3 972
Agriculture	91 057	12 085
Education	62 743	8 327
Culture, recreation, religion and mass media	8 036	1 067
Political and social systems, structures and processes	33 978	4 510
General advancement of knowledge: R&D financed from GUF	2 294 270	304 502
General advancement of knowledge: R&D financed from sources other than GUF	1 140 639	151 389
Defence	12 387	1 644

G-3 SHARE OF GOVERNMENT BUDGET ALLOCATIONS FOR R&D, BY SOCIO-ECONOMIC OBJECTIVES IN TOTAL GOVERNMENT BUDGET ALLOCATIONS FOR R&D (ADOPTED BUDGET FOR 2023), 2023



3 SHARE OF GOVERNMENT BUDGET ALLOCATIONS FOR R&D, BY SOCIO-ECONOMIC OBJECTIVES, IN TOTAL GOVERNMENT BUDGET ALLOCATIONS FOR R&D FOR EUROPEAN UNION COUNTRIES AND THE REPUBLIC OF CROATIA, 2022

96

	Exploration and exploitation of the Earth	Environment	Exploration and exploitation of space	Transport, telecommunication and other infrastructures	Energy	Industrial production and technology	Health	Agriculture	Education	Culture, recreation, religion and mass media	Political and social systems, structures and processes	General advancement of knowledge: R&D financed from GUF	General advancement of knowledge: R&D financed from sources other than GUF	Defence
EU-27¹⁾	...	2,55	5,89	2,74	4,73	10,23	8,29	2,99	1,71	1,00	1,79	35,53	16,54	...
Croatia	1,83	0,55	0,00	0,78	0,37	0,79	0,54	2,37	1,63	0,13	1,51	59,41	30,06	0,02
Austria	1,35	0,98	0,73	2,85	3,32	14,56	5,14	1,80	0,74	0,46	1,11	54,25	12,53	0,16
Belgium	1,52	0,65	7,99	0,49	1,89	34,67	1,79	2,57	0,32	1,50	2,58	17,73	25,18	1,11
Bulgaria	9,31	0,35	1,11	4,37	0,30	5,91	3,13	19,36	0,99	0,88	1,54	12,66	39,69	0,41
Cyprus	0,08	0,30	0,00	0,21	0,05	0,01	6,22	7,86	1,72	0,47	0,09	25,6	57,35	0,03
Czech Republic	2,17	2,18	1,95	3,86	3,82	10,83	6,59	4,14	0,57	1,97	2,27	25,34	33,59	0,71
Denmark	0,89	1,15	1,10	0,15	5,56	4,68	18,07	5,15	2,96	1,60	2,07	42,97	13,28	0,38
Estonia	1,46	1,25	4,90	0,41	0,51	4,28	1,84	5,27	0,09	0,76	3,72	16,79	56,48	2,22
Finland	0,61	7,28	3,10	1,17	4,23	18,00	2,10	2,88	0,46	0,41	2,50	29,97	25,35	1,93
France	1,41	1,88	10,96	4,57	6,84	0,79	12,40	2,40	0,17	0,64	0,13	25,38	23,63	8,81
Greece	2,06	2,13	2,76	8,16	2,20	15,52	10,40	3,26	0,73	9,54	7,28	30,59	3,49	1,86
Ireland	1,33	2,28	2,97	0,66	2,86	17,37	6,44	9,94	4,91	0,86	1,21	17,68	31,49	0,00
Italy	6,58	2,66	14,37	1,99	3,35	7,09	12,69	2,33	2,86	1,04	3,30	38,44	2,73	0,58
Latvia	...	6,23	0,74	2,10	3,28	6,36	13,18	10,92	3,59	3,76	2,38	8,49	36,63	...
Lithuania	3,22	0,75	0,44	3,50	4,20	8,81	2,16	3,20	0,58	3,25	3,09	55,46	11,09	0,26
Luxembourg	0,00	2,31	0,07	0,61	0,09	9,56	19,16	0,13	2,65	0,06	4,69	31,52	29,16	0,00
Hungary	1,42	3,72	8,13	13,22	7,96	11,37	12,57	5,82	8,56	0,45	3,42	1,59	14,8	6,98
Malta	0,65	0,60	1,08	0,29	2,96	1,70	4,82	2,65	0,51	0,84	3,54	80,36	...	0,00
Netherlands	1,06	0,61	1,94	1,76	2,36	6,89	6,94	3,13	1,89	0,31	2,09	53,49	14,78	2,74
Germany	1,26	3,28	4,18	2,38	6,05	14,60	6,28	2,71	2,00	1,03	1,80	35,41	13,71	5,30
Poland	0,04	0,62	0,49	0,39	1,69	0,99	2,98	0,20	0,16	0,15	0,22	50,06	37,58	4,44
Portugal	1,13	4,13	0,59	2,50	2,48	5,64	10,42	2,52	2,83	1,65	1,68	56,67	7,49	0,27
Romania	1,69	3,32	25,26	1,26	1,22	20,98	0,83	2,95	0,94	0,70	1,59	...	36,68	2,58
Slovakia	2,05	3,08	2,04	1,62	1,01	6,78	7,29	2,39	1,62	3,64	1,93	43,24	20,61	2,69
Slovenia	2,89	5,64	0,27	2,24	4,04	10,68	12,32	5,20	1,84	2,18	3,24	0,28	48,24	0,95
Spain	0,60	3,27	5,58	3,09	2,54	8,72	11,49	6,26	3,04	0,84	1,09	31,10	17,99	4,40
Sweden	1,84	2,47	0,80	5,64	4,07	2,99	2,65	1,92	0,84	0,19	2,36	48,08	23,72	2,43

1) Data for EU Member States, except for Bulgaria, Cyprus, France, Ireland, Latvia and Malta are provisional. Data for Denmark are estimated.

Data source: Eurostat (website https://ec.europa.eu/eurostat/databrowser/view/gba_nabsfin07/default/table?lang=en)

NOTES ON METHODOLOGY

Purpose of the survey

This survey collects data on the government budget allocations for R&D according to the socio-economic objectives, including all grants to the international R&D programmes or institutions abroad. The objective of the survey is to enable the monitoring of the state R&D policy through its financing of the R&D activities. As opposed to the research on organisations engaged in the R&D activities, this survey focuses on organisations that finance the R&D activity.

The survey is conducted on the basis of the Annual Implementation Plan for Statistical Activities of the Republic of Croatia 2023 (NN, No. 35/23) and the Official Statistics Act (NN, No. 25/20). The legal basis of the European Union for the implementation of the survey is Decision No. 1608/2003/EC of the European Parliament and of the Council of 22 July 2003 concerning the production and development of Community statistics on science and technology and Commission Implementing Regulation (EU) No. 995/2012 of 26 October 2012 laying down detailed rules for the implementation of Decision No. 1608/2003/EC.

Data sources

Data are the result of statistical processing of annual reports collected from budgetary and extra-budgetary users of the government budget in 2023. The Ministry of Science and Education provided data in the Annual Report on the Government Budget Allocations for R&D – PIIR-1 form, while other government bodies provided data in the Annual Report on the Government Budget Allocations for R&D – PIIR-2 form.

Pursuant to the Official Statistics Act (NN, No. 25/20), the confidentiality of all data provided by the reporting units in the form is guaranteed. The data collected are used solely for statistical purposes and are published in aggregate form.

Coverage and comparability

The statistical survey on the government budget allocations for R&D in the period from 2022 to 2023 covers budgetary and extra-budgetary users of the government budget in the Republic of Croatia, that is, all government bodies that in 2022 financed and in 2023 planned to finance the R&D activity. The data are based on the actual government budget allocations for 2022 (amounts effectively paid during the year) and the adopted government budget for 2023 (amounts enacted by the Croatian Parliament before the rebalancing of the budget).

The First Release includes data on funds that the Ministry of Science and Education directly allocated for the R&D purposes in 2022 from the government budget of the Republic of Croatia activity in the Ministry's competence as well as data submitted to the Ministry by reporting units. The First Release includes data related to institutions from the system of science and higher education (institutions of higher education and public scientific institutes).

Since October 2013, the Ministry of Science and Education has no longer funded the scientific/research projects (z-projects). The financing of research projects is carried out by the Croatian Science Foundation through its programme Research Projects and other programmes such as Installation Research Projects.

The data published in this First Release are comparable with data for previous years, including data for 2009 and 2010.

The methodological basis for the implementation of the survey is the internationally acknowledged standard, which was set up and published in the Frascati Manual 2015 by the OECD.

Definitions and explanations

Definitions of the R&D field are based on the international methodology – the Frascati Manual 2015 (Frascati Manual, 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, the Measurement of Scientific, Technological and Innovation Activities, publisher: OECD, Paris, 2015).

The Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets – NABS 2007 was used in monitoring of the allocation of the Government Budget appropriations or outlays according to the socio-economic objectives, which is correlated with the Frascati Manual. This Nomenclature explains the socio-economic objectives, that is, the purpose of the spent appropriations or outlays for the R&D in 13 categories.

Research and development (R&D) comprise systematic creative work aimed at increasing knowledge about man, culture and society and its application in practice. For an activity to be an R&D activity, it must satisfy five criteria. The activity must be novel, creative, uncertain, systematic and transferable and/or reproducible. There are three types of research and development: basic research, applied research and experimental development.

Business enterprise sector comprises enterprises and institutions the main activity of which is production of goods and services intended for market at commercial price. It includes public enterprises as well as non-profit institutions that are market producers of goods or services.

Government sector comprises all units of central and local government, including social security funds, except institutions of higher education as well as all non-profit institutions that are controlled by government units, and that are not themselves part of the Higher education sector.

Private non-profit sector comprises non-market, non-profit institutions serving households (that is, the general public), except those mainly controlled and financed by the government, their main characteristic being that they should not be the source of revenue or profit to the institutions controlling them.

Higher education includes all institutions providing formal tertiary education programmes, whatever their source of finance or legal status, and all research institutes and centres that have their R&D activities under the direct control of, or administered by, tertiary education institutions.

Abroad includes all institutions and individuals located outside the political borders of a country as well as all international organisations (except business enterprises) including facilities and operations within the country borders.

Socio-economic objective represents the basic allocation of funds for R&D set up by the OECD and expressed in 13 categories.

Abbreviations

EC	European Community
EU	European Union
Eurostat	Statistical Office of the European Union
GDP	gross domestic product
GUF	general university funds
NN	Narodne novine, official gazette of the Republic of Croatia
OECD	Organisation for Economic Co-operation and Development
R&D	research and development

Symbols

-	no occurrence
...	data not available
0,00	value not zero but less than 0.005 of the unit of measure used

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