Centrum Astronomiczne im. M. Kopernika PAN Annual Meeting 2025

Rafał MODERSKI

February 04, 2026

Years of Service at CAMK PAN

- **Prof. Marek Sarna** is an astrophysicist specializing in the evolution of close binary stars.
He served as Director of the Nicolaus Copernicus Astronomical Center (CAMK PAS) for many years, playing a key role in its development into a leading astronomical institute in Poland with strong international recognition.
His scientific work and leadership have had a lasting impact on Polish and international astronomy.

Years of Service at CAMK PAN

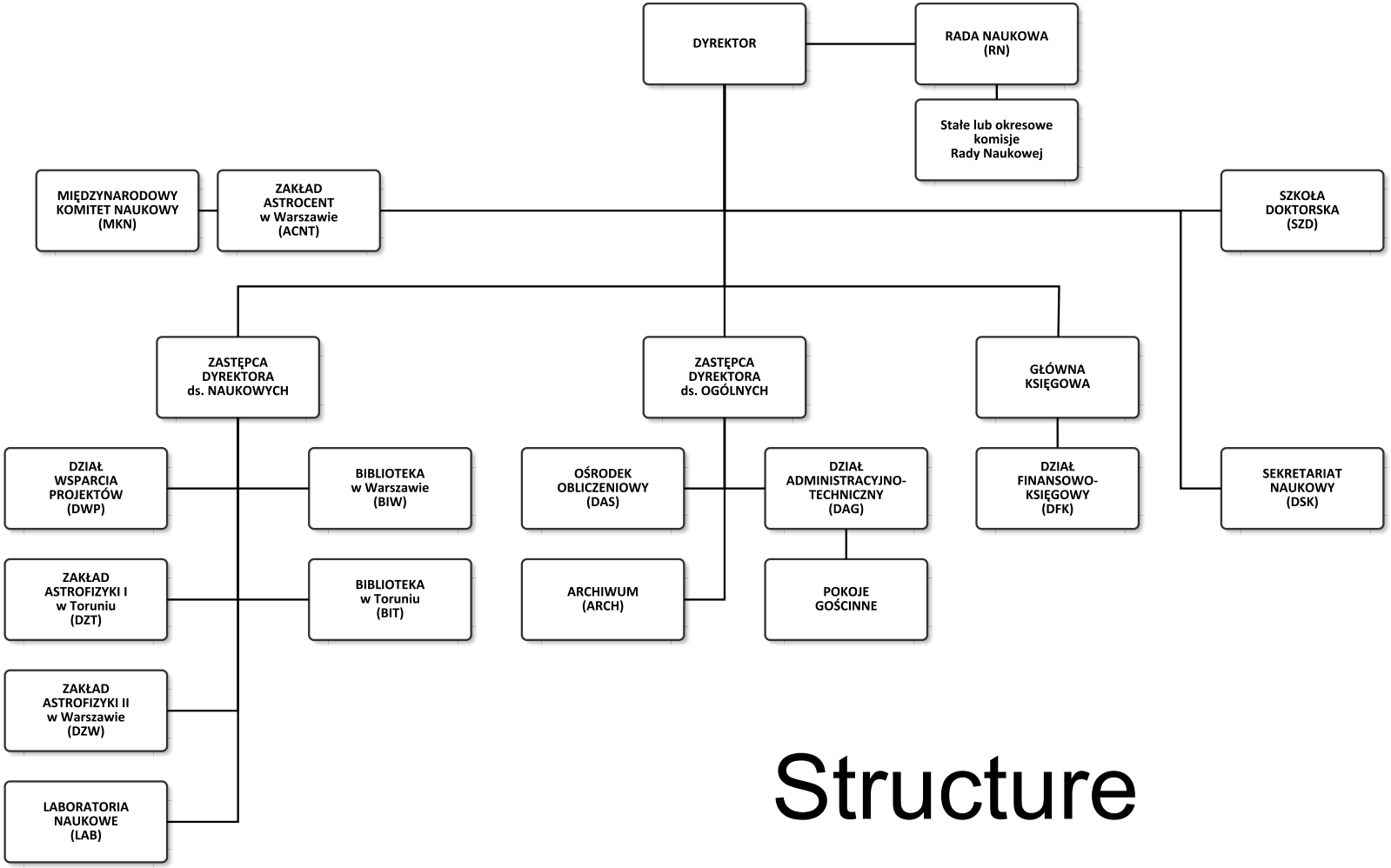
- **Stanisław Bajtlik, Ph.D.** is an astrophysicist and science communicator at the Nicolaus Copernicus Astronomical Center of the Polish Academy of Sciences (CAMK PAN). He has authored dozens of scientific papers and hundreds of popular science articles, radio and television programs, and the book *Kosmiczny alfabet*. Dr. Bajtlik is active in public outreach and science education, contributing to numerous media and events, and has been recognized for his work in popularizing physics and astronomy.

Prizes, awards and new memberships

- **Henryka NETZEL**

Stypendium Ministra Nauki i Szkolnictwa Wyższego dla Wybitnych Modych Naukowców

Minister of Science and Higher Education Scholarship for Outstanding Young Scientists


DYREKTOR
RADA NAUKOWA (RN)
Stałe lub okresowe komisje Rady Naukowej
MIĘDZYNARODOWY KOMITET NAUKOWY (MKN)
ZAKŁAD ASTROCENT w Warszawie (ACNT)
SZKOŁA DOKTORSKA (SZD)
ZASTĘPCA DYREKTORA ds. NAUKOWYCH
ZASTĘPCA DYREKTORA ds. OGÓLNYCH
GŁÓWNA KSIĘGOWA
DZIAŁ WSPARCIA PROJEKTÓW (DWP)
BIBLIOTEKA w Warszawie (BIW)
OŚRODEK OBLICZENIOWY (DAS)
DZIAŁ ADMINISTRACYJNO-TECHNICZNY (DAG)
DZIAŁ FINANSOWO-KSIĘGOWY (DFK)
SEKRETARIAT NAUKOWY (DSK)
ZAKŁAD ASTROFIZYKI I w Toruniu (DZT)
BIBLIOTEKA w Toruniu (BIT)
ARCHIWUM (ARCH)
POKOJE GOŚCINNE
ZAKŁAD ASTROFIZYKI II w Warszawie (DZW)
LABORATORIA NAUKOWE (LAB)

Structure

Scientific performance - evaluations

2013 (2009-2012): **A+**	excellent
2017 (2013-2016): **A**	very good
2022 (2017-2021): **A+**	**excellent**
2026 (2022-2025): **??**	**??**

Criteria: I) *publications*, II) *grants*, and III) *influence on economy, society, etc*.

I) **publications (weight 60%)**	**– 378,66 (max 439,26)**
II) grants (weight 20%)	– 139,55 (max 139,55)
III) influence (weight 20%)	– 30 (max 100/62,5)

For category A the reference numbers are 339,2/27,6/46

Expert evaluation for A+ (at least 86% of max publication score)

Publications/Presentations

	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
number of reports	106	111	126	135	135	130	127	113	107	100	88	81	70	63
refereed publications	165 (17)	206 (21)	156 (21)	204 (24)	189	205	172	181	183	201	113	134	113	99
ratio (#pubrec/#rep)	1,56	1,86	1,24	1,51	1,40	1,58	1,35	1,60	1,71	2,01	1,28	1,65	1,61	1,57
conference publications	13	33	21	52	17	45	13	73	50	53	42	50	30	37
conference presentations	121	134	173	150	122	53	170	136	186	101	123	114	139	84
other presentations abroad	29	48	54	49	48	30	43	43	40	38	28	45	28	33
other presentations in Poland	38	35	38	31	45	57	63	56	62	82	84	89	83	75

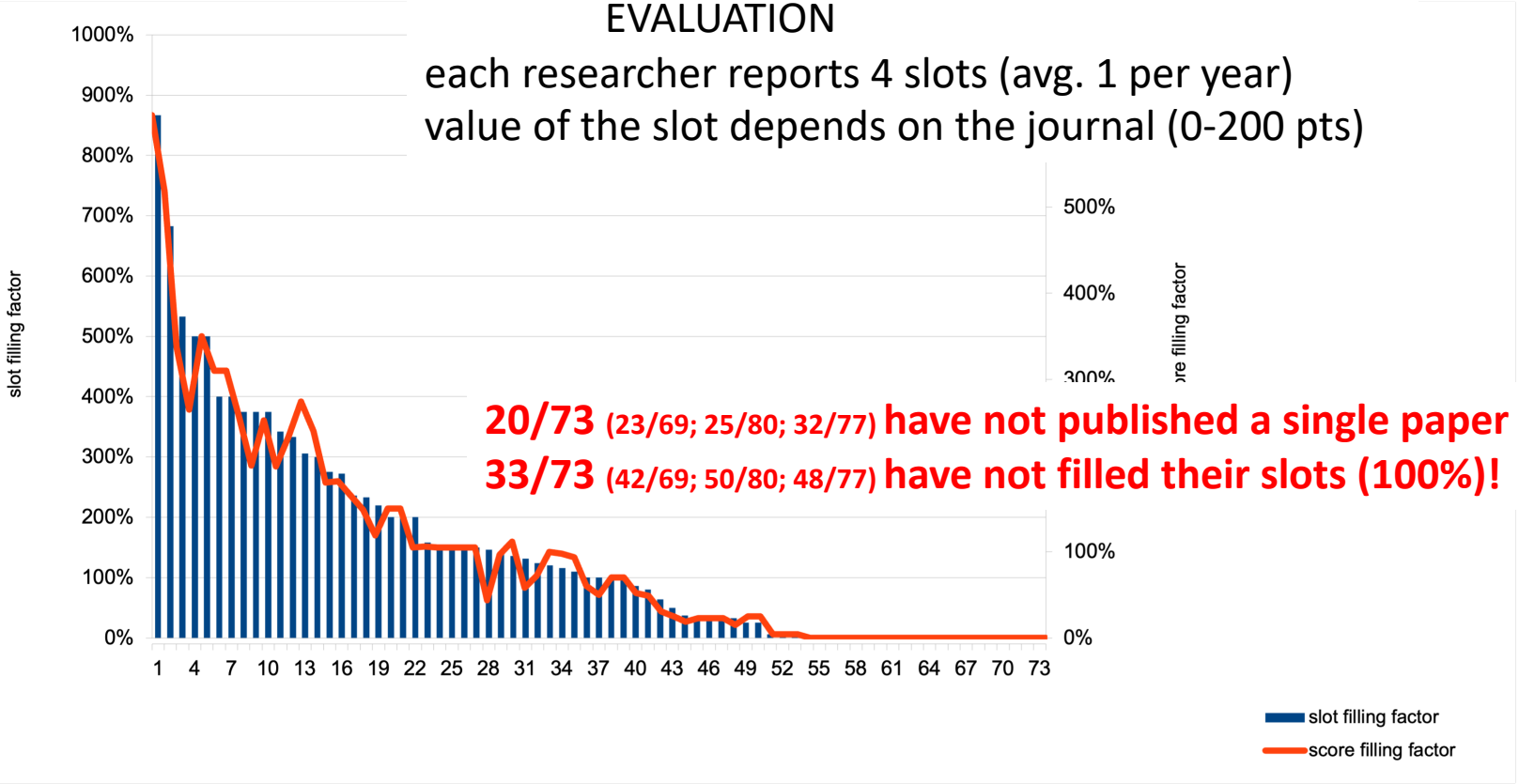
papers with authors > 100	21%	18%	21%	14%	20%	17%	23%	22%	19%	36%	14%
papers with 13 < authors < 100	14%	19%	17%	22%	16%	19%	18%	17%	15%	20%	25%
papers with authors < 13	65%	64%	62%	64%	64%	64%	60%	64%	49%	66%	58%

Publications/Presentations

EVALUATION

each researcher reports 4 slots (avg. 1 per year)

value of the slot depends on the journal (0-200 pts)



20/73 (23/69; 25/80; 32/77) have not published a single paper in 2025!

33/73 (42/69; 50/80; 48/77) have not filled their slots (100%)!

Evaluation recommendation

1) **Publish your results!**
2) Publish in high score journals:

CAMK may cover OA publication costs in these journals – contact me for details!

1	*ACS Nano*	1936-0851
2	*Advanced Science*	2198-3844
3	***Annual Review of Astronomy and Astrophysics***	0066-4146
4	*Annual Review of Earth and Planetary Sciences*	0084-6597
5	*Applied Physics Reviews*	1931-9401
6	***Astronomy and Astrophysics Review***	0935-4956
7	***Astrophysical Journal Letters***	2041-8205
8	***Astrophysical Journal, Supplement Series***	0067-0049
9	*Computer Methods in Applied Mechanics and Engineering*	0045-7825
10	*Living Reviews in Relativity*	1433-8351
11	*Living Reviews in Solar Physics*	1614-4961
12	*Measurement: Journal of the International Measurement Confederation*	0263-2241
13	*National Science Review*	2095-5138

14	***Nature***	0028-0836
15	*Nature Communications*	2041-1723
16	*Nature Physics*	1745-2473
17	***Physical Review Letters***	0031-9007
18	*Physical Review X*	2160-3308
19	*Physics Reports*	0370-1573
20	*Proceedings of the National Academy of Sciences of the United States of America*	0027-8424
21	*Reports on Progress in Physics*	0034-4885
22	*Reviews of Modern Physics*	0034-6861
23	***Science***	0036-8075
24	*Science Advances*	2375-2548
25	*Sensors and actuators B: Chemical*	0925-4005

Evaluation recommendation

3) Insert your publication into ORCID database (make it public)

4) **Report your publication!**

Evaluation 2022-2025

Criterion I
Scientific or artistic level of the conducted activity, assessed on the basis of **the publication achievements** of the employees of the evaluated entity and **the patents and protection rights granted** to the entity, or artistic achievements.

Criterion II
Assessment of **the financial outcomes of scientific research** and development works, carried out on the basis of the amount of financial resources granted to the entity for their implementation and the amount of financial resources obtained by the entity as a result of the commercialization of the results of scientific research or development works.

Criterion III
Assessment of the quality of scientific or artistic activity, carried out on the basis of **the impact of scientific or artistic activity on the functioning of society and the economy**. This is an expert-based criterion.

Evaluation 2022-2025

	2022-2025	2017-2021
Number of employees referred to in Article 265(4) of the Act	58,95	65,05
Number N	61,28	60,18
Number B	0	0
Number 3N	183,84	180,54
Total penalties	0	3
Maximum total of individual shares in scientific publications	183,84	177,54
Maximum total of individual shares in scientific publications of employees outside N	36,77	36,108
Maximum total of individual shares in scientific monographs	9,19	9,03
Maximum number of patents and protection rights	62	61
Total number of impact descriptions under Criterion III to be demonstrated by the entity	2	2

Evaluation 2022-2025

	2022-2025	2017-2021
Number of reported articles	649 (72)	841 (53)
Number of reported conference materials	1	82
Number of reported scientific monograph editorships	0	0
Number of reported monographs	0	0
Number of reported monograph chapters	3	2
Number of reported patents and protection rights	1	1
Number of reported projects	46	61
Number of reported revenues	6	8
Number of reported impact descriptions	2	2

Evaluation 2022-2025 – Criterion I

Evaluation summary results – Criterion I

	2022-2025		2017-2022	
Total score of the evaluation summary	29397,943		22757,854	
Number of slots from 3N of the discipline	183,84	0,0013	177,54	0,0102
Individual shares in monographs and scientific editorships	9,19	9,19	9,03	9,03

Evaluation 2022-2025 – Criterion II

Evaluation summary results – Criterion II		
	2022-2025	2017-2021
Total score for revenues from services	56,28	72,68
Total score for revenues from scientific projects	6786,98	8325,68
Total score for revenues from commercialization	0	0

Evaluation 2022-2025 – Criterion III

Cerro Murphy Observatory as a unique platform for scientific research, technological innovation, and dialogue with a knowledge-based society.

Astrocent: from research on the "invisible Universe" to innovation in medicine and industry

Employment

	TOTAL					ZA I (Toruń)					ZA II (Bartycka)					AstroCeNT				
	2025		2024	2023	2022	**2025**		2024	2023	2022	**2025**		2024	2023	2022	**2025**		2024	2023	2022
	FTE	os.	os.	os.	os.	FTE	os.	os.	os.	os.	FTE	os.	os.	os.	os.	FTE	os.	os.	os.	os.
pracownicy naukowi	51,19	74	73	87	72	6,07	7	7	7	7	37,34	55	57	52	44	7,78	12	9	28	21
bezterminowe	20	22	27	27	31	5	5	5	5	6	15	17	22	22	25					
terminowe	31,19	52	46	60	41	1,07	2	2	2	1	22,34	38	35	30	19	7,78	12	9	28	21
prac. badawczo-techniczni	5,87	8	4	4	4	2	2	1	1	1	3,87	6	3	2	2			0	1	1
liczba N	**59,15**	**69**	**67**	**77**	**74**															
pozostali	46,16	63	61	64	52	4,23	7	8	7	6	34,59	42	43	44	37	7,34	14	10	13	9
RAZEM	**103,22**	**145**	138	155	128	12,30	16	16	15	14	75,80	103	103	98	83	15,12	26	19	42	31
PhD students		**27**	29	37	39				5	4				25	29				7	6
przyjęci na I rok		5	3	1	4					1				1	2					1

Research projects

	2025			2024			2023			2022
	in progress	start	end	in progress	start	end	in progress	start	end	TOTAL
TOTAL	**34**	**22**	**12**	**31**	**11**	**10**	**27**	**7**	**22**	54
NCN grants	**21**	**10**	**10**	**23**	**8**	**4**	**21**	4	14	45
MAESTRO	**1**			**1**		**1**	1		2	4
SONATA/BIS	**6**	**2**		**4**	**1**	**1**	5		2	7
OPUS	**11**	**3**	**3**	**11**	**3**	**1**	9	3	4	17
PRELUDIUM/ BIS	**1**	**2**	**4**	**3**	**2**	**1**	4		2	8
MINATURA		**1**	**1**		**1**				2	2
inne	**2**	**2**	**2**	**4**	**1**		2	1	2	7
MEiN grants	**7**	**5**	**2**	**6**	**3**	**3**	**3**	**2**	**4**	8
EU grants	**2**	**5**		**2**		**3**	**3**			
other	**4**	**2**								

3 projects started at the beginning of 2026

Grants finances

Grants awarded in	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total budget	132 137	41 217	12 661	10 530	76 778	14 557	15 202	50 096	7 245	23 604	2 466
First year	34 658	4 018	2 388	2 708	2 592	4 327	1 330	4 884	2 521	5 521	661

New grants

	tytuł projektu PL	nazwa konkursu	PI (w CAMK)
1	Łączenie obserwacji i teorii: syntetyczne obserwacje gromad gwiazdowych z symulacji numerycznych	SONATA 20	ASKAR, Abbas
2	Śledzenie przepływu masy w układach podwójnych z akreującymi białymi karłami	SONATA 20	IŁKIEWICZ Krystian
3	Globalne symulacje numeryczne relatywistycznych dżetów	OPUS 27	NALEWAJKO,Krzysztof
4	W kierunku zrozumienia nisko-amplitudowej zmienności Cefeid klasycznych	OPUS 27	SMOLEC Radosław
5	Rozdzielone układy zaćmieniowe jako gwiazdy wzorcowe dla misji ESA PLATO	PRELLUDIUM 23	PAWAR, Ganesh
6	Przez soczewkę: odkrywanie ciągłych fal grawitacyjnych wzmacnianych przez mikrosoczewkowanie	PRELLUDIUM 23	SUYAMPRAKASAM Sudhagar
7	Przygotowanie infrastruktury kriogenicznej do domieszkowania ksenonem w	MINIATURA 9	ZABIHI Azam
8	Eksploracja niewidocznych struktur za pomocą soczewkowania fal grawitacyjnych	SONATINA 9	HARI KUMAR, Sree Kanth
9	Historia pierwiastków chemicznych C, N i O w Galaktyce	DAINA 3	SMILJANIC, Rodolfo
10	Granty na granty – promocja jakości V (Horyzont Europa)	MNiSW	PIETRZYŃSKI, Grzegorz
11	Time-domain Analysis to study the Life-cycle and Evolution of Supermassive black holes (TALES)	HORIZON MSCA Doctoral Networks 2023	RÓŻAŃSKA, Agata
12	Overcoming challenges in the evolution and nature of massive stars (OCEAN)	HORIZON TMA MSCA Staff Exchanges | HORIZON-MSCA-2023-SE-01	PILECKI, Bogumił
13	The Wide-Field Spectroscopic Telescope (WST)	HORIZON Research and Innovation Actions | HORIZON-INFRA-2024-DEV-01	SMILJANIC, Rodolfo
14	Astrocent Plus -- Particle Astrophysics Science and Technology Centre	HORIZON-WIDERA-2023-ACCESS-01	ROSZKOWSKI, Leszek
15	Granty na granty – promocja jakości IV (Horyzont	MNiSW	ROSZKOWSKI, Leszek
16	Wsparcie projektu Astrocent Plus -- Particle Astrophysics Science and Technology Centre	Przedsięwzięcie MNiSW	ROSZKOWSKI, Leszek
17	Konferencja DRD1	Wektory Nauki MNiSW	Andre Cortez
18	Co-financing for Probes of new physics and technological advancements from particle and gravitational wave physics experiments. A cooperative Europe - Unite States - Asia effort.	Projekty Międzynarodowe Współfinansowane MniSW	BOROWIEC Marta
19	Powstawanie i ewolucja galaktyk z poprzeczką w gromadach i grupach	OPUS 29	ŁOKAS, Ewa
20	Astrocent — Centrum Technologiczne Astrofizyki Cząstek (FENG)	Fundusze Europejskie dla Nowoczesnej Gospodarki 2021-2027	KUŹNIAK Marcin
21	EuroQHPC-Integration	DIGITAL JU Simple Grants | DIGITAL-EUROHPC-JU-2022-HPCQC-04-IBA	GAWRON, Piotr

New grants

HORIZON-WIDERA-2023-ACCESS-01
(**Teaming for Excellence**)
Astrocent Plus
prof. Leszek ROSZKOWSKI

MAB FENG
Astrocent – Centrum Technologiczne Astrofizyki Cząstek
Dr hab. Marcin KUŹNIAK

ERC Proof of Concept
AutObs – Towards Autonomus Observatories
Prof. Grzegorz PIETRZYŃSKI

HORIZON EUROPA
EuroQHPC – Integracja
Dr hab. Piotr GAWRON

Financing infrastructure/instrumental projects

(International) Astronomical Observatory (OCM), Chile
prof. G. Pietrzyński; ERC and MNiSW grants in progress

SOLARIS + National Center for Satellite quantum Communication (NCSatCom), RSA
prof. M. Konacki; MEiN SPUB in progres

SALT, RSA
prof. K. Hełminiak; MEiN grant in progres

BRITE, Poland
prof. G. Hamdler; MEiN SPUB in progress

Hyper-Kamiokande, Japan
dr. Marcin Ziembicki; MEiN grant in progress

CTA, Chile, La Palma; **H.E.S.S.,** Namibia; **SST-1M** Czechia
prof. R. Moderski

DarkSide, Italy
dr. M. Kuźniak

New-ATHENA
prof. A. Różańska

Rolf Chini's Cerro Murphy Observatory in Chile

Scientific degrees & title

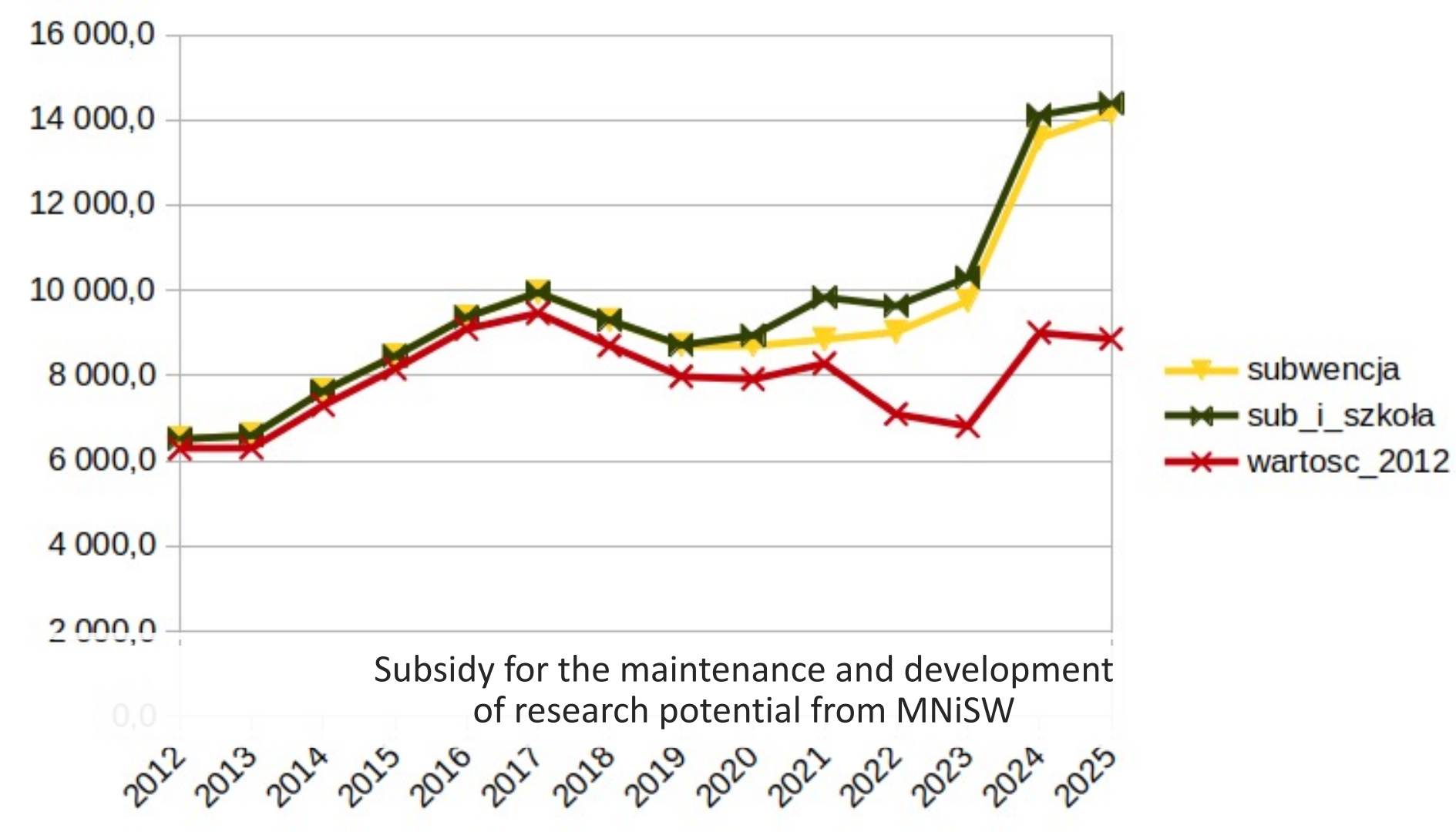
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
professor	(2)	0	0	0	1	3	1	0	0	1
habilitacja	0	(2)	(1)	0	4	2	5	2	1	1
PhD	10	9	6	10	4	3	2	5	4	1

Finances

INCOME						
	2025	2024	2023	2022	2021	2020
subwencja MEiN	**14 165,8**	13 570,2	9 752,2	9 025,8	8 848,8	8 718,0
subwencja bazowa	**13 633,6**	10 337,3	9 477,1	8 406,4	8 282,1	8 282,1
zwiększenie PhD	**224,7**	545,7	554,5	614,6	989,2	227,0
koszty pośrednie projektów	**3 150,8**	2 971,2	3 069,4	2 472,0	1 999,0	1 847,0
wynajem	**590,5**	447,7	438,6	408,0	339,0	367,0
hotel		137,8	113,8	107,0	98,0	90,0
usługi badawcze + R&D	**238,6**	379,8	341,1	421,0	650,0	381,0
inne	**282,0**	138,2	83,1	92,0	29,0	0,0
RAZEM	**18 652,4**	18 190,5	14 352,7	13 140,4	12 953,0	11 630,0
wynik finansowy	**10 221,3**	3 354,2	-6 053,7	4 715,7	161,9	81,9

Subsidy for the maintenance and development of research potential from MNiSW

rok	subwencja	zwiększenie	SUMA	zmiana r/r	szkoła doktorska	zmiana r/r	RAZEM
	[kPLN]	[kPLN]	[kPLN]	[kPLN]	[kPLN]	[kPLN]	[kPLN]
2012	6 512,0		6 512,0				6 512,0
2013	6 593,0		6 593,0	81,0		0,0	6 593,0
2014	7 640,0		7 640,0	1 047,0		0,0	7 640,0
2015	8 462,0		8 462,0	822,0		0,0	8 462,0
2016	9 376,0		9 376,0	914,0		0,0	9 376,0
2017	9 951,0		9 951,0	575,0		0,0	9 951,0
2018	9 300,0		9 300,0	-651,0		0,0	9 300,0
2019	8 453,4	264,6	8 718,0	-582,0		0,0	8 718,0
2020	8 282,1	435,9	8 718,0	0,0	227,0	227,0	8 945,0
2021	8 282,1	566,7	8 848,8	130,8	989,2	762,2	9 838,0
2022	8 406,4	619,4	9 025,8	177,0	614,6	-374,6	9 640,4
2023	9 477,1	275,1	9 752,2	726,4	554,5	-60,1	10 306,7
2024	10 337,3	3 232,9	13 570,2	3 818,0	545,7	-8,8	14 115,9
2025	13 633,6	532,2	14 165,8	595,6	224,7	-321,0	14 390,5



Subsidy for the maintenance and development of research potential from MNiSW

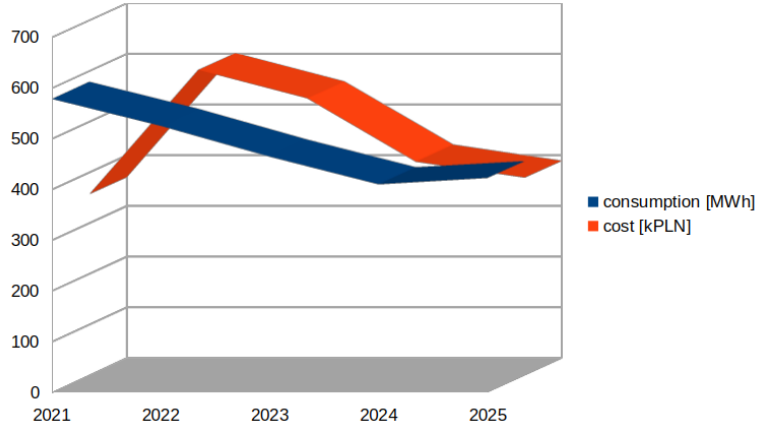
GreenCAMK

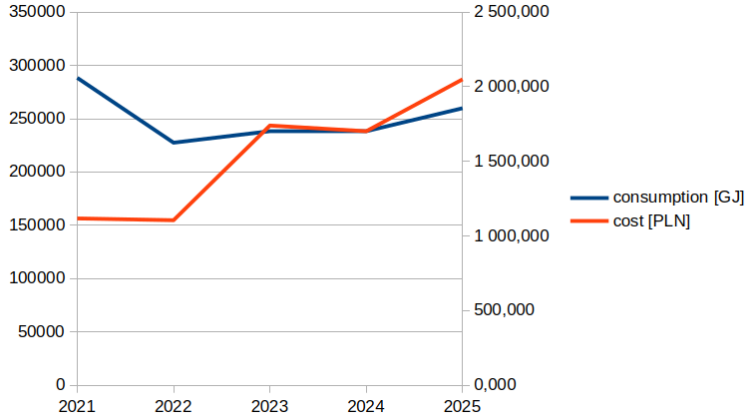
- **PV installation**
- 50 kWp installation on the roof in July 2024.
- 17.1 MWh in 2024
- **50 MWh in 2025**
- **(3676 trees planted;**

-53 T CO2; - 21 T C)

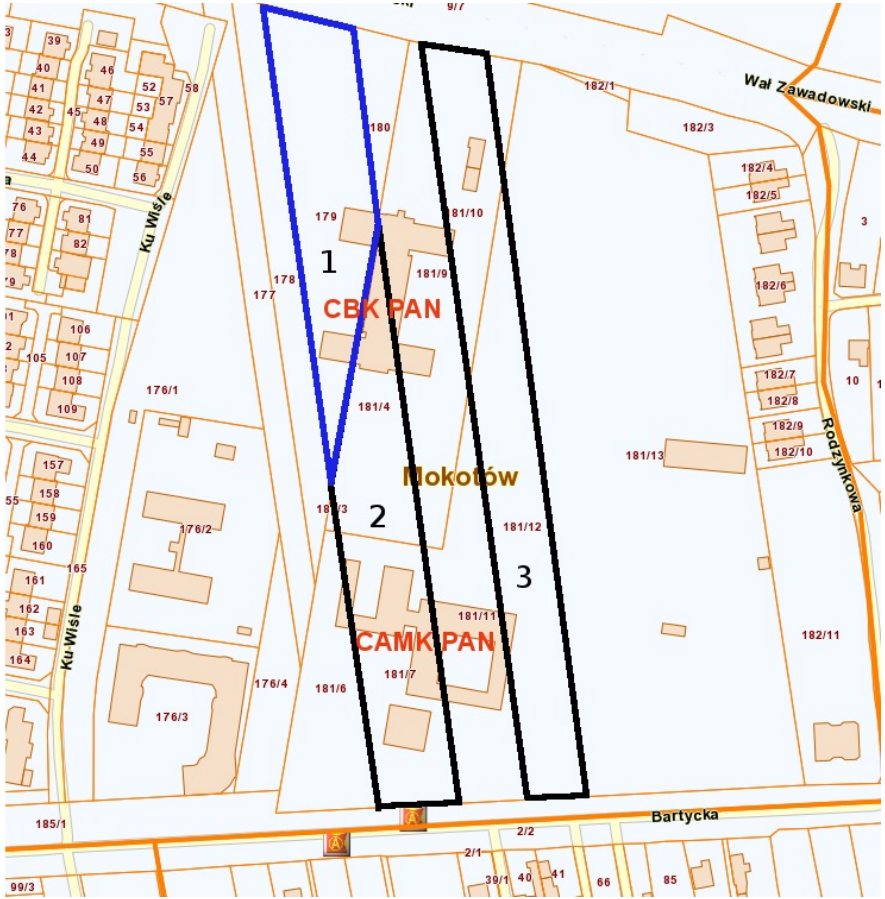
GreenCAMK

rok	zużycie [MWh]	koszt [kPLN]
2021	579,071	357,087
2022	525,768	602,138
2023	465,089	546,356
2024	410,321	421,585
2025	**422,704**	**389,943**





Land ownership



- Series of land ownership disputes
  - **No. 2 already resolved in 2016-2020**
  - **No. 3 - The court issued a judgment ordering the payment of compensation for non-contractual use of the plot**
    2 mln paid, 2 mln to come in Jun 2026
  - **We are no longer using plot no. 181/13 – it has been released to PAS**

Challenges for 2026

1) **towards the permanent A+ category**
   - **a) quality of research – scientific excellence**
   - b) better working and studying environment quality – HRS4R program
   - c) PR strategy (events, interviews, awards, social media actions)
2) **the future of AstroCeNT** – independent unit in 2026
3) **“big” infrastructure**
   - **a) OCM investment – awaiting 2.5 m telescope + strategic development**
   - b) SOLARIS + NCSatCom – repairs; new strategy required
   - c) BRITE control station – new strategy required
   - d) participation in international projects (CTA, H.E.S.S., Hyper-Kamiokande, DarkSide, space missions)
4) **salaries and costs (unknown)**
   - a) formal increase of salaries and scholarships
5) **GreenCAMK**
   - a) energy efficiency audit – no easy solution