

Table 1: Spanish planetariums and science museums engaged in astronomical activities.

Code (column 1): as explained in Table 1. The three first categories are ordered by decreasing dome size; the two last ones are ordered by date.

Date: refers to the creation of the institution or public opening of the planetarium.

Technical features: diameter of the dome in meters, number of seats, some details of the technical setup. (*) For science museums without planetarium, some astronomical activities are reported.

	Name	Date	Location	Ownership	Technical features	Web
P	Planetario de Pamplona	1993	Pamplona	Regional Government of Navarra & Obra Social La Caixa	20 m, 230 seats Hybrid setup with opto-mechanical system Zeiss + digital Sky Skan	www.pamploneterio.org
P	Planetario de Madrid	1986 (opening) 2017 (update)	Madrid	City Council & Obra Social La Caixa	16,5 m, 245 seats Hybrid setup with optical Stellarium Megastar + Digital Sky Skan	www.planetmad.es/
P	Planetari de Castelló	1991	Castellón	City Council of Castellón	12,5 m, 105 seats Hybrid setup with opto-mechanical system Zeiss + Digital RSA Cosmos	www.planetari.castello.es
P	Planetario del Instituto Politécnico Marítimo Pesquero (Escuela de Pesca)	1970 (Institute creation) 2013 (planet. activity)	Arrecife (Lanzarote)	Private management by AstroDidáctico	8 m, 40 seats Hybrid setup with optical system Zeiss + digital Kappa, 1 fish-eye projector	www.kosmos-lanzarote.com/lanzarote-digital-planetarium-2018/

P	Planetario de la Escuela Técnica Superior de Náutica	1829 (School creation) 1992 (planet. opening)	Santander	City Council of Santander & Cantabria University	8 m, 50 seats Opto-mechanical system + slide projectors	https://web.unican.es/centros/nautica/Paginas/Planetario.aspx
P	Planetari Municipal	1973	Barcelona	City Council of Barcelona	5 m, 25-30 seats Opto-mechanical system	http://ajuntament.barcelona.cat/educacio/es/planetari-municipal
pP	Planetario CETA - CIEMAT	2010	Trujillo (Cáceres)	CETA-CIEMAT & City Council of Trujillo	Biggest bubble dome: 8,9 m, 35-50 seats Digital system Digitarium Epsilon, software Stellarium	https://planetario.ceta-ciemat.es/
pP	Galactarium	2006	Arrecife (Lanzarote)	Private management by AstroDidáctico	6 m, 30-50 seats Digital system Digitarium Kappa	www.kosmos-lanzarote.com/galactarium/
pP	Aula del Cielo de Andalucía	2004	Málaga	Private	Bubble planetariums and management of two observatories of public use in Málaga: El Torcal and Benalmádena	http://auladelcielo.es/planetario
OP	Parc Astronòmic Montsec – Centre d'Observació de l'Univers	2009	Ager (Lérida)	Autonomous Government of Catalunya	12 m, 68 seats Digital system Sky Skan + 3D (glasses). The ceiling is opened	www.parcstronomic.cat/
OP	Observatorio Astronómico de Costitx y Planetario de Mallorca	2003	Costitx (Mallorca)	OAM Association	11 m, 110 seats Hybrid septup with opto-mechanical Zeiss + Digistar	www.oamallorca.org/

OP	Centro Astronómico Aragonés	2012 (planet. opening)	Cuarte (Huesca)	Government of Aragón & Astronomical Association of Huesca	10 m, 60 seats Digital system + 3D (glasses) + 4D (20 mobile seats). The dome is opened 3 telescopes in the observatory	www.espacio042.com/contenido-web/6/planet
OP	Observatorio de Tiedra	2013	Tiedra (Valladolid)	Private	6 m, 35 seats Digital system 2 night + 1 solar telescope	http://cieloytiedra.com/planetario/
M	Museo Nacional de Ciencias Naturales (MNCN)	1815	Madrid	State – Spanish National Research Council (CSIC)	(* Permanent exhibition of meteorites Camps and occasional astronomical activities	www.mncn.csic.es(index.jsp
M	Museo de Ciencias Naturales	1902	Valencia	City Council of Valencia	(* Guided visit to the museum + dinner + observations with the Valencian Association of Astronomy	www.museosymonumentosvalencia.com/museos/museo-ciencias-naturales/
M	Museo de la Naturaleza y el Hombre (MNH)	1982 (Natural Sciences Museum) 1997 (MNH)	Santa Cruz de Tenerife	Inter-island Council of Tenerife	(* Collection of 135 meteorites of Northwestern Africa	www.museosdetenerife.org/mnh-museo-de-la-naturaleza-y-el-hombre
M	Casa de las Ciencias	1910 (old abattoir) 1999 (Museum)	Logroño	City Council of Logroño	(* World Space Week: astronomical activities and observations (with Astronomical Assoc. of La Rioja). 5 permanent astronomical workshops	www.logroño.es/wps/portal/web/inicio/unidadesMunicipales/casaDeLasCiencias/

M	Museo Jurásico de Asturias (MUJA)	2004	Colunga (Asturias)	Principality of Asturias	(*) IYA 2009: exhibition of meteorites, workshops and talks. Bubble planetarium	www.museojurasticoasturias.com/
M	Museo de la Evolución Humana (MEH)	2010	Burgos	Autonomous Government of Castile - León	(*) Popular talks; course of initiation to Astronomy (2017 and 2018), astronomical observation in different places, with the Astronomical Association of Burgos	www.museoevolucionhumana.com/
M	Museo Nacional de Ciencia y Tecnología (MUNCYT)	2012	Coruña	State	(*) World Space Week: Astronomical Weekend (talks, projections, workshops)	www.muncyt.es
M	San Pedro Cultural (restored romanese church)	2015	Becerril de Campos (Palencia)	City Council of Becerril de Campos	(*) Sun clocks, meteorite, Foucault's pendulum, stellarium, pinhole cameras, midday line, solar spectrum, mural of planets, etc. Guided visits, astronomical observations, talks, exhibitions...	www.sanpedrocultural.es/
MP	Casa de las Ciencias	1985	Coruña	City Council of A Coruña	10 m, 79 seats Hybrid setup with optical system Zeiss + Digistar Museum: 1000 m2 of interactive exhibitions on Physics, Astronomy and perception	www.coruna.gal/mc2/es/casa-de-las-ciencias
MP	Museo de la Ciencia y el Cosmos (MCC)	1992 (β versión in Seville Expo'92) 1993	La Laguna (Tenerife)	Inter-island Council of Tenerife	6,5 m, 44 seats Hybrid setup with optical system GOTO GE II + Digistar Museum: building shaped as a half star; terrace with radio telescope (18m), dome with telescopes and solar displays. Interior: "Via Solaris", section "The Cosmos " with Earth, Sun and Universe (hands-on experiments)	www.museosdetenerife.org/mcc-museo-de-la-ciencia-y-el-cosmos

MP	Museu Marítim	1993	Barcelona	City and County Councils of Barcelona & Port authority	Fixed bubble planetarium: 6m, 40 seats	www.mmb.cat/
MP	Parque de las Ciencias	1995	Granada	Public consortium	5 planetariums (210 seats): Building Foucault's Pendulum: 10 m, 83 seats Hybrid system with optical and digital Zeiss; 2 digital: 5m; 1 opto-mechanical: 5 m; 1 digital bubble planetarium: 5 m Museum: astronomical observatory with reflecting telescope of 75 cm; Carl Sagan Hall for astronomical education; Garden of Astronomy for day observations, with instruments, scale models, Sun clock...	www.parqueciencias.com/parqueciencias/planetario/index.html
MP	Museo de la Ciencia y el Agua	1996	Murcia	City Council of Murcia	6m, 31 seats 1 central fisheye projector Museum: former water tanks equipped with exhibitions	http://cienciayagua.org/planetario/
MP	Museu de les Ciències Príncepe Felipe – Hemisfèric	1998 (Hemisf.) 2000 (Museum)	Valencia	Autonomous Government of Valencia	24m, 300 seats 3 systems: IMAX I TAMED, hybrid planetarium (optical and digital full dome Zeiss), digital cinema 3D Museum: 30000 m2 of exhibitions and hands-on experiments; Garden of Astronomy in the Umbracle	www.cac.es/
MP	Museo Elder	1884 (building of former	Las Palmas de Gran Canaria	Autonomous Government of the Canary Islands	Planetarium Paco Sánchez: 7,5 m, 41 seats Digital system RSA Cosmos	www.museoelder.org

		British Shipping Company) 1999 (Museum)			+ portable planetarium Museum: 4600 m2 of exhibitions on Maths, Physics, Biology, Computing, Engineering, Arts...	
MP	Museo de las Ciencias de Castilla – La Mancha (MCCM)	1999	Cuenca	Autonomous Government of Castile – La Mancha	10 m, 74 seats Hybrid setup with opto-mechanical Zeiss + digital LSS Nightshade Museum: 2800 m2 of exhibitions; astronomical observatory with Schmidt-Cassegrain telescope of 16'', camera and filters	https://pagina.jccm.es/museociencias
MP	Centro Principia	1999	Málaga	Public-private consortium	5m, 30 seats Digital system Digitalium, 1 fisheye projector Museum: interactive exhibitions and workshops, video library; astronomical observatory with Meade telescope of 10'' (collaboration of SIRIO Astronomical Association)	www.principia-malaga.com/p/
MP	Eureka! Zientzia Museoa	2001	San Sebastián	Kutxa Foundation	14,5 m, 140 seats Digital system RSA Cosmos, possibility of 3D Museum: 8 theme interactive exhibition halls; Foucault's Pendulum, astronomical observatory, workshops and shows, etc.	www.eurekamuseoa.es/es
MP	Museo de la Ciencia	2003	Valladolid	City Council of Valladolid	11 m, 78 seats Digital system RSA Cosmos, with 5 +1 LEDs projectors Museum: 4 floors of permanent exhibition on Energy, Water, Chemistry, Neuron, Nervous	www.museocienciavalladolid.es

					system and brain, Maths, inventions; 2 temporary exhibition halls; Children Room; House of the River...	
MP	Cosmocaixa	1981 (Science museum) 2004	Barcelona	Obra Social La Caixa	14 m, 136 seats Full dome digital 3D system Sky Skan, 4 languages Hall of Matter, Geological Wall, Flooded Forest, Top Science, "Touch-touch", Click of Children, bubble planetarium with planets models; temporary exhibitions, workshops...	https://cosmocaixa.es/es/cosmocaixa-barcelona
MP	Museo Casa de la Ciencia – CSIC	1929 (Peruvian Pavilion, Ibero- American Expo) 2008	Sevilla	State – Spanish National Research Council (CSIC) & City Council of Sevilla	25 seats, digital system Museum: permanent and temporary exhibitions, workshops...	www.casadelaciencia.csic.es/es/que-es-casa-ciencia
MP	Museo Nacional de Ciencia y Tecnología (MUNCYT)	2014	Alcobendas (Madrid)	State	10m, 73 seats Digital system RSA Cosmos Museum: more than 500 pieces in permanent exhibition halls as "Space and Time", with astronomical instruments, "Gabinete" or "Heritage"; hands-on experiments	www.muncyt.es