



IHO File No. S1/6100/2026

ASSEMBLY CIRCULAR LETTER N°2 Bis2 16 June 2025

## 4<sup>th</sup> SESSION OF THE IHO ASSEMBLY (A-4)

Monaco, 19-23 April 2026

### NOMINATION OF REAR ADMIRAL LUIGI SINAPI BY

### ITALY FOR THE POST OF SECRETARY-GENERAL AND IHO DIRECTOR

References:

- A. Assembly Circular Letter No.2 dated 29 April 2025 *Call for nomination of candidates for the position of IHO Secretary-General and IHO Director.*
- B. General Regulations of the IHO, Article 21
- C. General Regulations of the IHO, Article 26 (a)

Dear Hydrographer,

1. Reference A invited IHO Member States to nominate candidates for the position of IHO Secretary-General and IHO Director and indicated that the names of candidates and their nomination forms will be published as soon as they are received.

2. Italy has nominated **Rear Admiral Luigi SINAPI** to stand for election (Reference C) at the 4<sup>th</sup> Session of the IHO Assembly for the post of IHO Secretary-General and IHO Director. The nomination form is enclosed.

3. As required by Reference B, the Secretary-General will collate all the nominations received and present a consolidated inventory as part of the documentation for the consideration of the Assembly.

Yours sincerely,

Chathiers From

Dr Mathias JONAS Secretary-General

Annex: Nomination Form from Italy.



4b, quai Antoine 1<sup>er</sup> B.P. 445 MC 98011 MONACO CEDEX PRINCIPALITY OF MONACO



# Candidature for a post of<sup>1</sup>

# SECRETARY-GENERAL

# DIRECTOR

(Article 20 of the General Regulations)

# Candidature à un poste de

# SECRETAIRE GENERAL

# DIRECTEUR

(Article 20 du Règlement général)

## GENERAL - GENERALITES

- 1. Nominating Member State Etat membre qui présente le candidat : ITALY
- 2. Name Nom : LUIGI SINAPI
- 3. Nationality Nationalité: ITALIAN
- Date of birth Date de naissance : 27 August 1967
- 5. Titles and decorations Titres et décorations:

#### Italian Navy Rear Admiral

IHO Director Inter-Regional Coordination and Support Programme, since 1 September 2020

Director of the Istituto Idrografico della Marina - Hydrographer of ITALY, October 2015 - July 2020

"5 + 5 Defence" Initiative recognition, 2022

Silver Medal of Merit for Long Command, 2020

Mauriziana Medal for the 50 years of military service, 2019

Commemorative Medal for Multinational Peace Operations in Kosovo, United Nations resolutions 1244/99, 2018

Knight of the Order of Merit of the Italian Republic, 2014

Italian Legal Advisor for Military Operations, 2004

NATO Medal Kosovo, 2001

NATO Medal Former Yugoslavia, 2001

Commemorative Medal for Antarctic Mission, 1999

### EDUCATION AND LANGUAGES - ETUDES ET LANGUES

#### Education (periods, including specialized or special qualifications) - Etudes (durée, y compris les qualifications spécialisée sou particulières):

5 + 5 Defence Initiative - 9th Training for "senior", Ecole Militaire Paris, 2018

Diplôme d'études en langue française - DELF B1 level certificate in French language, 2017

<sup>1</sup>Tick one box or both

Il level Master Degree in Marine Geomatics, University of Genoa, 2008

Master of Sciences Degree in International and Diplomatic sciences, University of Trieste, 2004

II level Master Degree in International strategic and military studies, Centre for the Defense High Studies (CASD) and LUISS University, Rome, 2004

Bachelor Degree in Navigation and Maritime Science, University of Pisa, 2002

IHO-FIG-ICA Category A Hydrographer certification, 1996

Master of Sciences Degree in Physics, University of Lecce, 1996

Course for Hydrographers Category A at the Istituto Idrografico della Marina of Genova, 1992 - 1993

Corso Superiore at the Naval Academy, Livorno, 1992

Corso Normale at the Naval Academy, Livorno, 1985 - 1989

#### 7. Languages (speaking and reading capacity) - Langues (niveau oral et écrit) :

Italian (native speaker)

English (fluent in speaking and reading)

Spanish (fluent in speaking and reading)

French (good in speaking and reading)

### SERVICE AND EXPERIENCE<sup>2</sup> - SERVICES ET EXPERIENCE<sup>2</sup>

#### 8. Hydrographic service - Services dans l'hydrographie :

- Present As IHO Director, RAdm SINAPI is responsible of Inter-Regional Coordination Committee (IRCC) and its subordinate bodies, including International Board of Standards of Competences (IBSC) and General Bathymetric Chart of the Ocean (GEBCO), relations with FIG, GEO, IOC-UNESCO, the academic sector (education and training), and other relevant organizations, concerning the IRCC program; Capacity Building (CB), Training, Education and Technical Co-operation, including CB Work Programme, CB Fund and budget; Advsory Board on the Law Of the Sea (ABLOS); IHO Publications; International Hydrographic Review; IHO Assembly; IHO Annual Report; and the following Regional Hydrographic Commissions as permanent observer on behalf of the IHO Secretariat:
  - Mediterranean and Black Seas Hydrographic Commission (MBSHC);
  - Meso American Caribbean Sea Hydrographic Commission (MACHC);
  - South-East Pacific Regional Hydrographic Commission (SEPRHC);
  - ROPME Sea Area Hydrographic Commission (RSAHC);
  - South West Atlantic Hydrographic Commission (SWAtHC).

May 2025 – High Level Visit to the REPUBLIC OF GUATEMALA

April 2024 – High Level Visit to COMMONWEALTH OF THE BAHAMAS

December 2023 – High Level Visit to JAMAICA

<sup>&</sup>lt;sup>2</sup> All service and experience relevant to the nomination and which provide an indication of the extent to which the candidate is qualified to serve as Secretary-General or Director.

<sup>&</sup>lt;sup>2</sup>Tout service et toute expérience en rapport avec la candidature donnant une indication de la mesure dans laquelle le candidat est qualifié pour occuper le poste de Secrétaire général ou de Directeur.

November 2023 - High level Visit to the DOMINICAN REPUBLIC

March 2023 – present – Responsible for the execution of the Letter of Intent between the International Hydrographic Organization (IHO) and the World Maritime University (WMU) of the International Maritime Organization (IMO)

September 2022 – High Level Visit to the PLURINATIONAL STATE OF BOLIVIA

September 2020 – present – IHO Director Inter Regional Coordination and Support Programme

January 2018 – July 2020: Italian Hydrographic Society (IHS) representative at Board of Directors of International Federation of Hydrographic Societies (IFHS)

November 2017 - August 2020: IHO - Hydrographic Services and Standards Committee (HSSC) Chair

October 2017 – July 2020: Member of ITALY at the IHO COUNCIL

August 2017 – July 2020: Representative of ITALY as Associate Member of IHO – Arctic Regional Hydrographic Commission (ARHC)

July 2017 – July 2019: IHO - Mediterranean and Black Seas Hydrographic Commission (MBSHC) Chair

June 2016 - July 2020: Representative of ITALY at the Hydrographic Commission on Antarctica (HCA)

February 2016 - January 2017: Head of the Hydro-Oceanographic Office at the Italian Navy Headquarters

October 2015 – July 2020: Director of the Instituto Idrografico della Marina – Hydrographer of ITALY

- February 2001: Liaison hydrographic Officer onboard US NAVOCEANO launch for the joint ITA-USA hydrographic survey in the Naval Base of Gaeta (I)
- November 2000 January 2001: Oceanographic Branch Staff Officer NATO Command Naval South Europe (COMNAVSOUTH)

March 1998 – October 2000: Head of the Hydrographic Division at the Italian Hydrographic Institute

October 1997 – February 1998: Head of the first marine trials of the European Geostationary Navigation Overlay Service (EGNOS) from Italian survey vessel "Mirto"

September 1996 – September 1997: Commanding Officer of Italian Navy SURVEY VESSEL "MIRTO" employed during maritime surveys along the Italian coasts

February 1996: Head of the Hydrography and Nautical Cartography team in the 11th Antarctic expedition within the Italian Antarctic Research Program

October 1994 – January 1996: Hydro-oceanographic Officer onboard the hydrographic Italian ships "Ammiraglio Magnaghi" and "Mirto"

June 1993 – September 1994: Head of several hydrographic and geodetic campaigns in Italian waters and along Italian coasts

#### Non-Hydrographic service - Services autres qu'hydrographiques :

November 2014 – October 2015: Head of the 1st Division of the LOGISTIC Department of the Navy General Staff

October 2013 – October 2014: Head of the 5th Division of the OPERATION Department of the Navy General Staff

September 2012 - September 2013: Commanding Officer of the Italian Navy DESTROYER "LUIGI DURAND DE LA PENNE" August 2007 - August 2012: Head of the 1st Division of the FINANCIAL PLANNING Department of the Navy General Staff

September 2005 - July 2007: Commanding Officer of Italian Navy FRIGATE "ZEFFIRO"

July 2004 - August 2005: Executive Officer of the Italian Navy FRIGATE "ALISEO"

September 2003 - June 2004: Selected to attend the Joint General Staff Superior Institute in Rome

November 2001 - August 2003: Standing Naval Force Mediterranean (STANAVFORMED) Liaison Officer at NATO Command Naval South Europe (COMNAVSOUTH)

September 1997 - February 1998: Selected to attend the XX General Staff Course at the War School in Livorno

March 1996 - July 1996: Selected to attend the 191st Commanding Officer School section

April 1990 - August 1992: Navigating Officer and Deputy Telecommunications Officer on Italian Navy AIRCRAFT CARRIER "GIUSEPPE GARIBALDI"

#### Scientific Activities – Activités scientifiques

- 2023 present: Member of the "Advisory Board of the Centro del Mare" at the University of Genoa, Italy
- 2022 present: Lecturer at the "Intelligent Infrastructure Course for Intrapreneurial Students" of University POLITECNICO of Turin, Italy
- 2021 present: Lecturer at the "Master's Degree in Maritime, Port and Logistics Law" of University of Bologna, Italy
- 2021 present: Lecturer at the course on "Maritime and air transport science and logistics" of University of Messina, Italy
- 2019 2020: Member of the Italian delegation at Antarctic Treaty Consultative Meeting (ATCM)
- 2019 2020: Responsible of the "Framework Agreement in Marine Research and training in Oceanography" with the Parthenope University of Naples (I)
- 2019 2020: Member of the national "Joint Research Unit European Multidisciplinary Seafloor and Water Column Observatory (JRU-EMSO)"
- July 2019: Coordinator of the "Italian Navy Arctic Marine Geophysics Campaign HIGH NORTH 19"
- 2018 2020: Member board of the Cluster technological national Blue Italian Growth (CTN-BIG) created by National Law n°123 of 3rd of August 2017
- 2018 2020: Lecturer at the Professional Master in Sustainable Development, geopolitics of resources and Arctic Studies at the Italian Society for International Organization (SIOI), Rome (ITALY)
- 2018 2020: Responsible of the "Framework Agreement in Marine Research and training in Hydrographic and Oceanographic sciences" with the University of Cagliari
- July 2018: Coordinator of the "Italian Navy Arctic Marine Geophysics Campaign HIGH NORTH 18"
- 2017 2018: Chairman of the "Tavolo Tecnico Interministeriale Italiano per la Rideterminazione delle linee di base dritte e delle line di chiusura delle baie naturali e storiche", Rome (ITALY)

August-September 2017: Speaker at Jean Monnet Module European Union and the Law of the Sea (EULOS) – Summer School 2017, Genoa (ITALY)

July 2017: Coordinator of the "Italian Navy Arctic Marine Geophysics Campaign - HIGH NORTH 17"

2017 - 2020: Member of the "Consulta Nazionale per l'Informazione Territoriale e Ambientale - CNITA"

- 2017 present: Member of the "Italian Hydrographic Society (IHS)"
- 2016 present: Member of the scientific board of The INTERNATIONAL PROPELLER CLUB GENOA (ITALY)
- 2016 2020: Professor of Hydrography at the "II Level Master in Marine Sciences: Ocean Physics and Technology", organized by the Parthenope University of Napoli and Alma Mater Studiorum University of Bologna (I), and by the Italian Navy
- 2015 2020: Member of the National Arctic Committee and of International Arctic Council EPPR (Emergency Prevention, Preparedness and Response) WG
- 2015 2020: Member of the National Council of Public Works "Consiglio Nazionale dei Lavori Pubblici"
- 2015 2020: Member of the National Cartographic Committee (AIC), member of the National Remote Sensing Association (SIFET) and member of the Italian Federation of the Scientific Association Environmental and Territorial Information (ASITA)
- 2015 2020: Member of the National Oceanographic Committee "Commissione Oceanografica Italiana COI"
- 2015 2020: Member of Digital Italy Agency "Agenzia per l'Italia Digitale AGID"
- 2001 2004: Visiting Professor of "Hydrography and Geodesy" at the Parthenope University, Napoli (I)

#### Bibliography

#### International Review and Books

"Integrated Mapping of the Seafloor Applied to Different Environments with Innovative Technologies: The Case Study of Molloy Hole (Arctic Ocean)" – with Ivaldi R., Palacios Torres G., Demarte M., Nardini R. in: Daponte P., Klosak M., Bendarma A., *Modern Technologies Enabling Innovative Methods for Maritime Monitoring and Strengthening Resilience in Maritime Critical Infrastructures*, NATO Science for Peace and Security Series -D: Information and Communication Security eBook, Volume 65, November 2024.

"The International Hydrographic Organization (IHO) S-100 – Universal Hydrographic Data Model: a new revolutionary way to represent the marine environment" with Nyberg J., The International Pilot – The magazine of the International Maritime Pilots' Association (IMPA), Issue 56, July 2024.

"Hydrography & Naval Cartography – Interview with Rear Admiral Luigi Sinapi, Director Inter-Regional Coordination & Support Programme of the International Hydrographic Organization", NAVAL FORCES O., II/2023 Vol. XLIV, February 2023.

"The naval officer who aims to boldly go where no seabed mapper has gone before" – Guy Toremans interviews Rear Admiral Luigi Sinapi, WARSHIPS International Fleet Review, January 2023.

"Hydrography: From Marine Data to Information" with Pizzeghello N.M, in: Daponte, P., Rossi, G.B., Piscopo, V. (eds) *Measurement for the Sea*, Series in Measurement Science and Technology. Springer, 24 January 2022. Cham. <u>https://doi.org/10.1007/978-3-030-82024-4\_1-</u>.

"Special – IHO Directing Committee contribution" with Kampfer A., Jonas M., International Hydrographic Review (IHR), Vol. 25, May 2021.

"Tidal inlet seafloor changes induced by recently built hard structures" – with Madricardo F., Molinaroli E., Fogarin S., Kruss A., Petrizzo A., Pizzeghello N.M., Trincardi F., *PloS one*, journals.plos.org, 16 October 2019. (https://doi.org/10.1371/journal.pone.0223240).

"New Arctic geophysical data from the Yermak Plateau (northern Svalbard margin)" – with Demarte M., Ivaldi R., Rebesco M., Geophysical Research Abstracts, Vol 21, 2019.

"High-Resolution multibeam and hydrodynamic datasets of tidal channels and inlets of the lagoon of Venice", with Madricardo F. et al., Scientific Data 4, Article number: 170121, 05 September 2017. "The Graham Bank: hydrographic features and safety of navigation", with Lamberti L.O., Pizzeghello N.M., Ivaldi R., International Hydrographic Review (IHR), Vol. XX, May 2016.

"Optimum trigonometric ellipsoidal height, direct and inverse", with Caporaso U., Vassallo A., International Hydrographic Review (IHR), Vol. 5, N. 2, November 2004.

"Determination of the azimuth with solar observations without any particular astronomical knowledge and spherical trigonometry", with Vassallo A., Survey Review, Vol. 37, N. 293, May 2004.

"External alignment between two beacons at different elevation for use in bathymetric operations", with Vassallo A., Gargiulo R., International Hydrographic Review (IHR), Vol. 4, N. 2, November 2003.

"A morphometric model of the Aeolian Islands (Italy)", with Bissoni M., Favalli M., Mazzarini F., Mori A., Pareschi M.T., Il Nuovo Cimento, Vol. 26 C, N. 4, 2003.

"Nautical cartography in the Ross Sea – Antarctica", with Gargiulo R., Annali Facoltà di Scienze Nautiche Napoli (I), Vol. LXVI, 2002.

"The first EGNOS Trials at Sea: In Columbus' week", with Basker S., Solari G., Secretan H., Barboux J.P., GALILEO'S WORLD Ed., 2000.

#### National Review

"Ocean's knowledge: the role of the International Hydrographic Organization in the incoming decade" Sinapi L. in OGS (National Institute of Oceanography and Applied Geophysics), Bulletin of Geophysics and Oceanography, Vol. 62, Supplement N.3, September 2021.

"Mareometria e GNSS", with Squerso D., Betti B., Demarte M., Federici B., Pierozzi M. - Bollettino della ASSOCIAZIONE ITALIANA di CARTOGRAFIA 2018 (164), 2018, 139-144.

"La misura del tempo", with Vassallo A., Anno CXLI, Rivista Marittima, Ottobre 2008.

"L'arte della navigazione nei secoli", with Vassallo A., Anno CXLI, Rivista Marittima, Gennaio 2008.

"La misura spaziale di Eratostene", with Vassallo A., Anno CXXXIX, Rivista Marittima, Novembre 2006.

"Idrografia e diritto", Anno CXXXIX, Rivista Marittima, Aprile 2006.

"Un approccio geodetico ed astronomico alla conoscenza della terra geometrica", with Vassallo A., Informazioni della Difesa, Giugno 2005.

"L'esercitazione navale «IONEX 2004» un passo significativo verso la cooperazione italo-russa", Informazioni della Difesa, Gennaio 2005.

"I due problemi fondamentali della geodesia per la navigazione astronomica, in forma algebrica, sulla sfera terrestre e sull'ellissoide WGS'84", with Vassallo A., Annali Facoltà di Scienze Nautiche, Napoli (I), Vol. LXVIII, 2004.

"Azimut e punto nave astronomico con assorbimento intrinseco del cammino nave negli intervalli delle osservazioni", with Vassallo A., Annali Facoltà di Scienze Nautiche, Napoli (I), Volume LXVII, 2003.

"L'informazione geografica e la qualità dei dati", with Gargiulo R., Informazioni della Difesa, Gennaio2003.

"Il grid kilometrico della Mercator Secante e sue applicazioni operative", with Gargiulo R., Lusiani P., Vassallo A., Istituto Idrografico della Marina Ed., Genova (I), I.I. 3166, 2002.

"Il concetto di «Rapid Environmental Assessment» nelle operazioni navali NATO", with Gargiulo R., Informazioni della Difesa, Febbraio 2002.

"Il modello tridimensionale dell'Arcipelago Eoliano: un esempio d'integrazione tra rilievo fotogrammetrico e batimetrico", with Favalli M., Mori A., Pareschi M.T., Sinapi L., Surace L., *Bollettino di Geodesia e Scienze Affini*, Anno LXI, N.1, 2002. "Antartide", with Gargiulo R., Rivista Marittima Ed. Dicembre, 2000.

"L'EGNOS: caratteristiche generali e primi test operativi in mare", with Surace L., Bollettino SIFET, N. 4, 2000.

"La cartografia nautica in Antartide", with Gargiulo R., Mori A., Surace L., Bollettino SIFET, N. 3, 2000.

"Errori commessi in un rilievo idrografico e differenti tecniche di modellazione tridimensionale", with Mori A., Spagnuolo A., Pizzi C., Istituto Idrografico della Marina Ed., Genova (I), I.I. 3085, 2000.

#### Proceeding of International Conference

"Seabed Mapping: the Key from Science to Policy to Practice for a Sustainable Ocean" Sinapi L., in Investing in Ocean Solutions: towards a brighter future for the Ocean" Workshop, United Nations DESA in collaboration with UNOSD, Incheon (ROK), 14-15 January 2025.

"Safety and security in Mediterranean Straits" Sinapi L., 43rd CIESM Congress, Palermo (I), 14-19 October 2024.

"Mapping the Seafloor as the key to preserve the Underwater" Sinapi L., XIV Trans-Regional Seapower Symposium, Venice (I), 7-10 October 2024.

"The Empowering Women in Hydrography project: Promoting transformative changes to improve gender balance" Sinapi L., Conference of John Percival Marine Associates/Hoylake Sailing School Ltd., Association of Women in Yachting, Monaco Yacht Show 2024, Monaco (Monaco), 26 September 2024.

"The role of the International Hydrographic Organization in the world of shipping" Sinapi L., Propeller Club of Monaco, Monaco (Monaco), 19 September 2024.

"The S-100 Standard: the new digital approach to representing the marine environment" Sinapi L., 26th International Maritime Pilots' Association - IMPA Congress, Rotterdam (NL), 21-26 April 2024.

"L'hydrographie, un fil rouge pour l'océan", Sinapi L., L'obligation des États de protéger et préserver le milieu marin, Actes du colloque 12-13 May 2023, INDEMER, Lexis Nexis, 2024.

Participation in the WMU-GOI BUGWRIGHT2 Forum 2024 organized by the WMU-Sasakawa Global Ocean Institute (WMU-GOI) at the World Maritime University (WMU), Athens (GR), 16 February 2024.

Keynote Speaker at NATO Advanced Training Course on "Modern Technologies Enabling Innovative Methods for maritime Monitoring and Strengthening Resilience in Maritime Critical Infrastructures", Agadir (MO), 15-20 January 2024.

"Opening and Closing remarks", Map the Gaps Symposium, Oceanographic Museum of Monaco hosted by the International Hydrographic Organization, Monaco (Monaco), 6-8 November 2023.

Moderator of "Session 6 – Gender Equality in Ocean Science and Governance", Ocean Geosciences: from the past century to the future decade, 11th ABLOS Conference, IHO Secretariat, Monaco (Monaco), 11-12 October 2023.

"Seabed Mapping: How the super Yacht Community can help map the seabed better" Sinapi L. and Harper S., Monaco Yacht Show 2023, Monaco (Monaco), 27 September 2023.

"The Universal Hydrographic data model S-100: S-100 and S-200 products development" Sinapi L., Digital@Sea Asia Conference, Seoul (ROK), 12-13 September 2023.

"Port approach navigational charts and port authority responsibility" Sinapi L., 1st African Harbor Masters Committee Seminar, Tangier (MO), 2 - 3 March 2023.

"Hydrography : Supporting Sustainable Development" Sinapi L., XIII Trans-Regional Seapower Symposium, Venice (I), 5-7 October 2022.

"Importance of gender allies and feature new IHO Empowering Women in Hydrography program" with Biron A., Making waves for ocean science: Empowering Women Leaders in the Ocean Decade, United Nations Ocean Decade Virtual Series Special Event in Celebration of International Women's Day, 8 March 2021. General Co-Chair at the IMEKO TC19, METROLOGY FOR THE SEA 2020 Workshop, www.metrosea.org, Naples (I), 5-7 October 2020.

"Hydrography – Enabling Autonomous Technologies" Sinapi L., WORLD HYDROGRAPHY DAY INTERNATIONAL WEBINAR, Jakarta (ID), 1st September 2020.

"From Magellan to the new marine cartographic frontiers – Explorations of the future hydrographic goals" Sinapi L., 42<sup>nd</sup> CIESM Congress, Cascais (PO), 7-11 October 2019.

General Co-Chair at the IMEKO TC19, Workshop on METROLOGY FOR THE SEA 2019 Workshop, www.metrosea.org, Genoa (I), 3-5 October 2019.

"S-100 Universal Hydrographic Data Model: the limits and boundaries challenge", with Pizzeghello N. and Pratellesi M., EGU General Assembly, Vienna (AT), 7-12 April 2019.

"New Arctic geophysical data from the Yermak Plateau (northern Svalbard margin)", with Demarte M., Ivaldi R. and Rebesco M., EGU General Assembly, Vienna (AT), 7-12 April 2019.

"Monitoring the evolution of the coasts for a sustainable Blue Growth", with Biscotti E. and Pizzeghello N., "XIX Giornata mondiale dell'acqua" Convegno "Gestione e difesa delle coste", Accademia dei LINCEI, Rome (I), 21 March 2019.

"Hydrographic standard for a secure sea" – INTERREG ITALY-CROATIA, "Information Technology for Safety: a joint Italian and Croatian perspective for the Adriatic Sea" Technical Seminar, Venice (I), 29 February 2019.

"HIGH NORTH: il Programma di ricerca in Artico della Marina Militare", 2° International Forum "Nuovo Artico – Vecchio Mediterraneo", MILAN CENTER for FOOD LAW and POLICY, Genoa (I), 13-14 November 2018.

"HIGH NORTH Program – New Hydrographic Data in the Arctic", with Ivaldi R. and Demarte M., First Seabed 2030 - Arctic, Antarctic & North Pacific Mapping Meeting, Stockholm University, Stockholm (FI) 8-10 October 2018.

"HIGH NORTH: the Italian joint research program", Arctic Regional Hydrographic Commission (ARHC) Open Forum 2018, Longyearbyen, Svalbard (NO), 11 September 2018.

"Preliminary results of the Italian Navy Arctic Marine Geophysics Campaign HIGH NORTH 18", Pressconference onboard of NATO ship ALLIANCE, Tromsø (NO), 25 July 2018.

"HIGH NORTH: the Italian Navy's Joint Research Programme in the Polar Region", Naval Survey & Ocean Intelligence Conference, London (UK), 20-21 June 2018.

"Education and Capacity Building for Blue Growth", Union for Mediterranean (UfM) Regional Stakeholder Conference on "Blue Economy", Naples (I), 30 November 2017.

"HYDROGRAPHY for a secure sea", G7 High Level Meeting on Maritime Security, Rome (I), 20 November 2017.

Keynote Speaker at the IMEKO TC19 Workshop on "METROLOGY FOR THE SEA 2017", www.metrosea.org, Naples (I), 11-13 October 2017.

"Preliminary results of the Italian Navy Arctic Marine Geophysics Campaign HIGH NORTH 17", Pressconference onboard of NATO ship ALLIANCE, Tromsø (NO), 28 July 2017.

"Sailing for Science: on board experiences for transferring knowledge on Historical Oceanography for Future Innovation", with Garvani S., Carmisciano C., Locritani M., Grossi L., Mori A., Stroobant M., Schierano E., De Strobel F., Manzella G., Muzi E., Leccese D., Morellato C., La Tassa H., Talamoni R., Coelho E. and Nacini F., *EGU General Assembly*, Vienna (AT), 23-28 April 2017.

"Innovative REA tools for integrated bathymetric survey", with Demarte M., Ivaldi R., Bruzzone G., Caccia M., Odetti A., Fontanelli G. and Masini A., EGU General Assembly, Vienna (AT), 23-28 April 2017. Keynote Speaker at the Union For Mediterranean (UFM) Stakeholder Conference on "Towards an Initiative for the sustainable development of the blue economy in the western Mediterranean", Barcelona (SP), 2 February 2017.

"GEBCO Archaeological Hydrography", GEBCO Forum, Monaco (Monaco), 15-17 June 2016.

"4D Seafloor view", GEBCO Forum, Monaco (Monaco), 15-17 June 2016.

"Developing Skills and Capabilities of the Italian Navy Survey Vessel Fleet", OSV (Oceanographic Survey Vessel) Conference, London (UK), 8-10 June 2016.

"Last century seabed morphodynamics of the Magra River estuary (Western Mediterranean Sea)", with Pratellesi M., Ivaldi R., Ciavola P., EGU General Assembly, Vienna (AT), 17-22 April 2016.

"Data quality indicators: from paper charts to electronic navigational charts", CIRM Conference & AGM 2016, Santa Margherita Ligure (I), 11-13 April 2016.

#### Proceeding of National Conference and Technical Report

"Marine Geology for Hydrography", with Ivaldi R., 3° Convegno di Geologia Marina, Roma (I), 21-22 February 2019.

"I rilievi idrografici portuali tra applicazione degli standard ed evoluzione della professione dell'Idrografo", REMTECH-EXPO 2018, Coast, Ferrara (I), 19-21 September 2018.

Contributor to "The BLUEMED Italian White Paper: an overview of relevance, obstacles and proposals of the key sectors for a Blue Growth", Consiglio Nazionale delle Ricerche (CNR) Edizioni, Rome (I), July 2018.

"Dalla sicurezza della navigazione alla crescita blu: il contributo dell'Istituto Idrografico della Marina all'economia blu nazionale e portuale di Genova", Summit "Blue Economy", Genoa (I), 9 April 2018.

"L'Istituto Idrografico della Marina e lo SCUFN (Sub-Committee on Undersea Feature Names)", with Ivaldi R., 2° Convegno di Geologia Marina, Roma (I), 23-24 February 2017.

"Idrografia e Maritime Capacity Building", with Demarte M., 2° Convegno di Geologia Marina, Roma (I), 23-24 February 2017

"Monitoraggio idrografico del Banco di Graham (Canale di Sicilia)", with Lamberto L.O., Ivaldi R., Pizzeghello N.M., 1° Convegno di Geologia Marina, CNR Roma (I),18-19 February 2016

"La cartografia nautica e l'evoluzione del territorio – il porto di San Benedetto del Tronto", with Cella A., Demarte M., Convegno annuale della Associazione Italiana di Cartografia (AIC), San Benedetto del Tronto (I), 11-13 May 2016

"Lezioni di Idrografia teorica ed applicata" – Parthenope University, Napoli (I), Manuale del Corso di Idrografia, 2001.

"La rappresentazione digitale dei fondali marini", with Gargiulo R., Mori A., Parente C., Pugliano A., Santamaria R., 1° Convegno AUTeC (Associazione Universitari di Topografia e Cartografia), Napoli (I), 17-18 May 2001.

"Progetto 3b: Telerilevamento, GIS, Banche dati e Idrografia", with Lamberti L.O., Rapporto sulla Campagna Antartica estate australe 1995/96, Programma Nazionale di Ricerche in Antartide (PNRA), 1996.

#### National Conference and Workshop Organization

Conference on "The International Hydrographic Organization and the challenges of the Ocean decade", University of Pavia – Collegio Cairoli, Pavia (I) 30 June 2024.

"The establishment of the Italian EEZ in the Central Mediterranean and the Role of UNCLOS in IHO Initiatives", Conference "L'Italia e il Diritto del mare", University of Milano Bicocca, Milano (I), 29 April 2022. "HIGH NORTH: The Italian Navy Marine geophysics Arctic research Program", Exhibition "La Marina Italiana al Polo Nord – Dal Duca degli Abruzzi alle spedizioni High North", Genoa, 17 April 2019.

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"Tecnologie di Monitoraggio e Sorveglianza in mare", XXXVII FORUM della Fascia Costiera Ligure-Tirrenica e del Mar di Sardegna, ROTARY Distretto 2000, Reggio Calabria (I), 23-25 March 2018.

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"Le pratiche di studio, mappatura, misura e rappresentazione dei fondali marini e delle coste: storia, riferimenti teorici, normativi e casi applicativi", *Conference National Order of Engineers*, Rome (I), 17 February 2016, and Ragusa (I), 29 April 2016.

Workshop "Arctic Council, Governance and politics" and seminar of Whitney Lackenbauer "Placing Canada's Northern Strategy in a Global Context: Sovereignty, Environment, Resources, and Human Development", Canada Embassy, Rome (I), 21 March 2016.

## CANDIDATE'S POSITION - POSITION DU CANDIDAT

The election of the International Hydrographic Organization (IHO) Secretary-General is a pivotal process that shapes the organization's strategic leadership. This role demands a visionary leader with expertise in hydrography, ocean mapping, and international cooperation. The Secretary-General must drive innovation, foster global collaboration, and ensure hydrographic advancements benefit all nations. Below is an in-depth look at the five key focus areas influencing the election.

## A. Improving Seabed Mapping

Seabed mapping is a fundamental aspect of hydrography, providing critical data for navigation, environmental protection, resource management, and disaster resilience. However, a significant portion of the world's seabed remains unmapped or inadequately surveyed. Key actions needed:

- <u>Strengthening global cooperation among International and Inter-governmental organizations</u>, <u>governments</u>, <u>private sectors</u>, <u>and scientific institutions</u>: the IHO shall continue to support the global initiatives currently in place (i.e. Seabed2030 project) and advocate to the international community a plan to complete the mapping of the ocean floor;
- <u>Encouraging national contributions</u>: coastal States should be encouraged to invest in and share seabed mapping data, particularly in under-surveyed areas;
- <u>Advancing technology and data sharing</u>: the adoption of autonomous survey technologies, satellite-derived bathymetry, and artificial intelligence should be promoted to accelerate highresolution seabed mapping;
- <u>Expanding public-private partnerships</u>: collaboration with private industry, research institutions, and NGOs can facilitate large-scale seabed mapping efforts.

## B. Completing the transition to S-100 standard to pave the way for e-navigation

The hydrographic community is undergoing a major shift from the S-57 Electronic Navigational Chart (ENC) standard to the S-100 Universal Hydrographic Data Model, which allows for more versatile marine representation and detailed marine data usage.

Key priorities:

- Facilitating a smooth transition: the IHO should support member States in updating their systems, training personnel, and ensuring compatibility with S-100 standards;
- <u>Promoting interoperability</u>: S-100 enables multiple data layers (e.g., tides, currents, seabed characteristics, navigational warning and products, marine protected areas, etc.) to be integrated, benefiting marine navigation, defense, and environmental monitoring;
- <u>Strengthening coordination with UN-DOALOS, IMO, WMO, IOC-UNESCO, IALA, IEC, IHMA and RENCs</u>: close international and technical cooperation is essential to align regulations and implementation strategies;
- <u>Providing technical guidance and training</u>: Capacity Building programs should be improved and expanded to assist Member States, particularly developing States, in adopting S-100 effectively.

## C. Enlarging participation and membership in the IHO

The IHO reached 100 Member States in 2024. While this is an important milestone, many coastal and island States and inland States still remain outside the organization. Increasing participation is thus essential to achieving a truly global hydrographic community. Strategies to expand participation:

- <u>Outreach to non-member States</u>: the IHO should engage with governments, demonstrating the strategic and economic benefits of membership;
- <u>Reducing barriers to entry</u>: technical support should be offered to countries with limited hydrographic resources to encourage their participation;
- Engaging Regional Hydrographic Commissions (RHCs): strengthening the role of RHCs can facilitate dialogue with non-member States and encourage them to join;
- <u>Highlighting hydrography's relevance</u>: demonstrating how hydrographic data supports disaster resilience, maritime safety, and the blue economy can encourage more States to become involved.

### D. Supporting the creation of Hydrographic Capacities worldwide

Many developing States lack the necessary hydrographic infrastructure, expertise, and resources to conduct effective surveys and maintain nautical charts.

Key actions:

- <u>Enhancing technical assistance programs</u>: the IHO should strengthen the Capacity Building
  program, which provides training, equipment, and advisory services;
- <u>Encouraging knowledge transfer</u>: partnerships between developed and developing States should be fostered to build local hydrographic expertise;
- <u>Promoting regional hydrographic training centers</u>: supporting training institutions and promoting
  education in hydrography and nautical cartography in different regions can help build skilled
  personnel globally;
- <u>Leveraging funding from international organizations</u>: engaging with the national and international stakeholders and institutions, and private sector donors can help secure financial support for hydrographic capacity development;

### E. Strengthening Cooperation at Regional and International Levels

Hydrography is inherently global, requiring strong coordination between States, organizations, and industries. Enhanced cooperation will improve data sharing, technological advancements, and maritime security.

Key initiatives:

- <u>Deepening regional collaboration</u>: strengthening the Regional Hydrographic Commissions (RHCs) will improve information exchange and joint projects;
- Expanding partnerships with UN agencies, IGOs and NGOs: collaboration with such organizations can enhance hydro-oceanographic research and data integration;
- Engaging with industry leaders: the IHO should work with technology firms, shipbuilders, and maritime operators to drive innovation in hydrography;
- <u>Fostering diplomatic dialogue on marine data governance</u>: international discussions on data accessibility, sovereignty, and environmental protection should be encouraged to ensure responsible use of hydrographic information.

## ADDITIONAL INFORMATION - RENSEIGNEMENTS COMPLEMENTAIRES (if any) (le cas échéant)

Rear Admiral Luigi SINAPI has been serving the Italian Navy since October 1985, acting also as Commanding Officer of a Survey Vessel, a Frigate and a Destroyed. From October 2015 to July 2020, he served as Hydrographer of Italy (Director of the Istituto Idrografico della Marina). He was promoted Rear Admiral on 1<sup>st</sup> January 2018 and since 1<sup>st</sup> September 2020 he is serving at the IHO as Director Inter-Regional Coordination and Support Programme.

As a lifelong Category A trained Hydrographer advocate for the transformative power of hydrography, and strong international experience as the person responsible for coordinating regional and international cooperation programs within the IHO, he brings a unique combination of technical expertise, visionary leadership, diplomatic skills and a proven track record in fostering international cooperation. His background includes:

- Leading innovative marine mapping projects and hydrographic standards that have set new global benchmarks;
- Negotiating successful international collaborations across diverse cultural and geopolitical contexts;
- Driving large-scale capacity-building initiatives in regions that needed it most.

The combination of these three qualities positions Rear Admiral Sinapi as an exceptional candidate for IHO Secretary-General. His modern and forward-thinking approach ensures he remains a global leader in hydrographic science and services, driving innovation, fostering international collaboration, and shaping a future where hydrography empowers humanity while safeguarding the Ocean for generations to come.

With a proactive and enthusiastic nature, coupled with a decade of experience as Chair of the Hydrographic Services & Standards Committee (HSSC) of the IHO, National Hydrographer of Italy, and IHO Director of Inter-Regional Coordination and Support, Rear Admiral Sinapi has demonstrated exceptional communication skills, unwavering dedication, and extensive international experience. His leadership has been instrumental in navigating the challenges faced by the IHO over the past five years – from the aftermath of the COVID-19 pandemic and the expansion of IHO membership to the implementation of new standards, advancements in seabed mapping, and the strengthening of hydrographic capacities at national and regional levels. These achievements highlight Rear Admiral Sinapi's unique blend of technical expertise and diplomatic acumen – an essential combination for successfully engaging with the diverse and increasingly demanding hydrographic community. His proven ability to provide expert, rapid and tangible responses to complex challenges, coupled with his strategic vision and deep international experience, makes him an ideal candidate to lead the IHO into the future.

Date : 15 MAY 2025

Signature of candidate:

Signature du candidat :

Forwarding Authority - Autorité qui transmet :

CHIEF OF THE ITALIAN NAVY - VICE ADMIRAL ENRICO CREDENDINO

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Signature of forwarding authority:

Signature de l'autorité qui transmet :