D1.18
Review of IALA Website – VDES and related pages

Project no.	636329
Project acronym:	EfficienSea2
le:	EFFICIENSEA2 – efficient, safe and sustainable traffic at sea
Funding scheme:	Innovation Action (IA)
Start date of project:	1 May 2015
End date of project:	30 April 2018
Duration:	36 months
Due date of deliverable:	30.09.2017
Actual submission date:	24.02.2017
Organisation in charge of deliverable:	IALA

Contents

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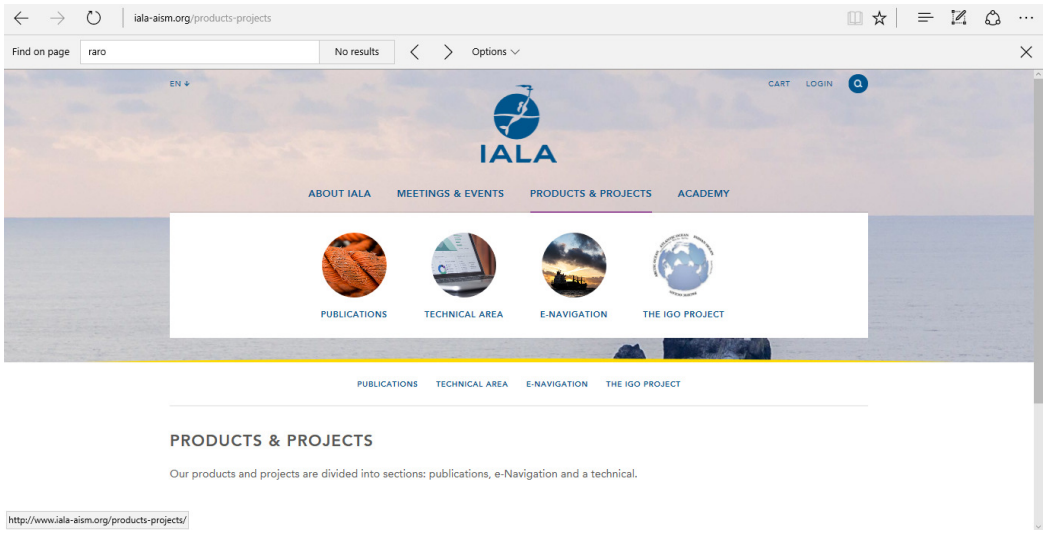
IALA Website – VDES and related pages

Following a review of the pages under 'Products / projects' a number of suggestions are proposed. It is a review of IALA Website – VDES and related pages.

1 Landing page for Products & Projects

Amend the text to reflect the images.

Current Text	Proposed Revised Text
Our products and projects are divided into sections: publications, e-Navigation and a technical	The products and projects pages are divided into four sections: publications; technical area; e-navigation; and information on the IALA change of status project (the IGO project). Possibly in "about IALA".



2 Publications

Publications can no longer be sorted. The capability to sort these by ID, Title or Last Revised was very useful on the old website.

Amend the page to add back the ability to sort publications.

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Showing 1–20 of 69 results

ID	Title	Last revised date	Price	Format
A-124 App.0	AIS References, Glossary of terms and Abbreviations A-124 App.0	07 December 2012	Free	PDF: English
A-124	AIS Service – main document A-124	01 December 2012	Free	PDF: English
	Application of the user pays principle to VTS V-102	09 December 2011	Free	PDF: English
e-NAV-140	Architecture for Shore-based Infrastructure 'Fit for e-Navigation' e-NAV-140	29 May 2015	Free	PDF: English
O-139	Balisage des structures artificielles en mer O-139	12 December 2013	Free	PDF: French
R-101	Balizas de radar (Racones) R-101	01 December 2004	Free	PDF: Spanish

3 Technical Area

3.1 Landing page

Amend landing page text to more accurately reflect the content of the pages.

Current Text	Proposed Revised Text
Welcome to the technical pages of IALA. You will find links to IALA-Net, IWRAP MK2, IALAWiki and more here	Welcome to the technical pages of the IALA website. This area provides information and links on a number of areas, including IALA-NET; risk management tools and the IALAWiki.

3.2 Titles of sub-pages

Amend the titles of the sub-pages under the Technical Area.

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Current sub-page title	Proposed Revised sub-page title
World DGNSS	(no change)
Efficiensea 2	Delete from here / move to e-Navigation area, under test beds.
new sub-page heading	VHF Data Exchange System (VDES)
IHO S100 GI Registry	IHO S100 / S200 *Amend to reflect content of the sub pages*
AIS Application Specific Messages	(no change)
IALA Wiki	(no change)
IALA-Net	(no change)
Risk Management Tools	(no change to title; proposed changes to page)
Calculation and Working Tools	(no change to title; proposed change to page)

3.3 VHF Data Exchange System

3.3.1 Landing page

Proposed text:

> AIS is well recognized and accepted as an important tool for safety of navigation and is a carriage requirement for SOLAS vessels (Class-A). However, because of its effective and useful technology, the use of AIS is expanded to vessels not subject to the SOLAS carriage requirement, and to completely different applications. This expanding use of AIS technology has caused significant increase in VHF Data Link (AIS VDL) loading which has become an active concern in IMO and ITU, and it is considered necessary to urgently allocate new frequencies for new and emerging applications in order to mitigate overloading of AIS VDL.
>
> Simultaneously, because of increasing demand on radio spectrum for digital communication such as mobile phone and data, ITU now requests more efficient and effective use of radio spectrum.
>
> The VHF Data Exchange System (VDES) is seen as an effective and efficient use of radio spectrum, building on the capabilities of AIS and addressing the increasing requirements for data through the system. New techniques providing higher data rates than those used for AIS will become a core element of VDES. Furthermore, VDES network protocol should be optimized for data communication so that each VDES message is transmitted with a very high confidence of reception.

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3.3.2 Sub pages

Proposed sub-page title	Proposed sub-page content
Frequently Asked Questions	*FAQ as agreed by IALA Council. These will be updated as required.*
VDES test beds	These test beds are specifically designed to demonstrate the use of the terrestrial and satellite components of VDES. *A list of test beds specifically related to VDES development. These test beds will also be identified in the e-navigation test bed area, with the test bed pages linked both from this sub-page and the e-navigation test bed sub-page.*
VDES Overview ppt	*A link to download the VDES generic ppt, as a resource for use in presentations.*

3.4 IHO S-100 / S-200 sub-page

Amend sub-page titles.

Current sub-page title	Proposed Revised sub-page title
S-200 product specification	Delete – content is the same as the landing page for the IHO S-100.
IALA S-200 Management	(no change)
IALA S-200 Development Status	(no change)

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Amend landing page text.

Current text	Proposed Revised text
In January 2010 the International Hydrographic Organization (IHO) adopted S-100, a framework geospatial standard for hydrographic and related data. S-100 is aligned with the ISO 19100 series of geographic standards, thereby making the use of hydrographic and other geographic data more interoperable than using the present IHO S-57 data transfer standard	In January 2010, the International Hydrographic Organization (IHO) adopted S-100, a framework geospatial information standard for hydrographic and related data. S-100 is the document that explains how the IHO will use and extend the ISO 1900 series of geographic standards for hydrographic, maritime and related issues. S-100 extends the scope of the existing S-57 Hydrographic Transfer standard. Unlike S-57, S-100 is inherently more flexible and makes provision for such things as the use of imagery and gridded data types, enhanced metadata and multiple encoding formats. It also provides a more flexible and dynamic maintenance regime via a dedicated on-line registry. S-100 provides the data framework for the development of the next generation of ENC products, as well as other related digital products required by the hydrographic, maritime and GIS communities. *Make the text 'International Hydrographic Organization' hot link to the IHO website at www.iho.int* *Make the text for 'International Organization for Standardization' hot link to the ISO website at www.iso.org*
The S-100 document is underpinned by a Registry and component Registers based on ISO 19135 – Procedures for registration of items of geographic information. The IHO owns and manages the Registry.	The S-100 document is underpinned by a Registry and component Registers based on ISO 19135 – Procedures for registration of items of geographic information (GI). The IHO owns and manages the Registry.
The S-99 standard describes the roles, responsibilities and procedures for operating and managing the S-100 Geospatial Information Registry and its component Registers.	The IHO S-99 standard describes the roles, responsibilities and procedures for operating and managing the S-100 GI Registry and its component registers.
Within the IHO Registry, registers may be used by external Submitting Organisations.	(no change)
IMO NAV, at its 57th session, agreed on the use of the IHO GI Registry as a baseline for the collection, exchange, and distribution of data. Supporting a greater variety of information and therefore supporting increased interoperability, was the first step towards the Common	The IMO Safety of Navigation (NAV) subcommittee, at its 57th session, agreed on the use of the IHO GI Registry as a baseline for the collection, …

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Current text	Proposed Revised text
Maritime Data Structure essential for e-Navigation.	
IALA Council has approved the participation of IALA in the IHO GI Registry as a Submitting Organisation and as a domain owner (i.e. the IALA domains within the Registry).	(no change)
The next step for IALA committees and contributors is to populate the IALA Domain within the registry. Where the development of product specifications comes first and then the required items are registered into the registry.	IALA committees and contributors are populating the IALA Domain within the registry. Where the development…

3.4.1 IALA S-200 Management

Current text	Proposed Revised text
As a Domain Owner, IALA will require interaction within the IHO's Domain Control Body and the adherence to the timelines of the IHO's registry management processes. This activity affects the work of the IALA Domain Management and could lead to the involvement of IALA Field Managers and IALA Product Specification Developers.	As a Domain Owner, IALA interacts with the IHO's Domain Control Body and adheres to the timelines of the IHO's registry management processes. This activity affects the work of the IALA Domain Management and could lead to the involvement of IALA Field Managers and IALA Product Specification Developers.
IALA Domains Administrator resides in the IALA Secretariat and coordinates the activities of each of the IALA Field Managers and acts as the single point of contact with the IHO.	The IALA Domain Administrator resides in the … *Recommend moving the image to after this paragraph as the image assists with understanding the various terms in the text.*
In the context of IHO Registry, IALA currently recognises the following Product Fields: AtoN information, VTS, WWRNS, IWRAP, etc. Each Field has at least one IALA product and one Product Specification. The IALA Field Manager harmonises the different products / Product Specifications within that Field. The IALA Field Manager also considers the usage of entries by others in his Field.	In the context of the IHO Registry, IALA currently recognises the following Product Fields: Aids to Navigation (AtoN) information, Vessel Traffic Service (VTS), World-Wide Radio Navigation System (WWRNS), IWRAP, and more. Each Field has at least one IALA product and one Product Specification. The IALA Field Manager harmonises the different products / Product Specifications within that Field. The

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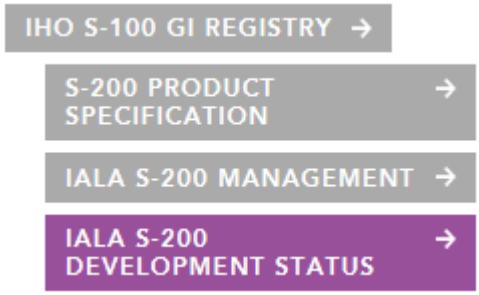
Current text	Proposed Revised text
	IALA Field Manager also considers the usage of entries by others in his Field.
IALA Product Specification Developer is appointed to manage each IALA Product Specification. IALA Product Specification Developer coordinates the development of an IALA Product Specification, coordinates the usage of existing entries in the IHO Registry that are used by that IALA Product Specification and coordinates the creation of new entries required by that IALA Product Specification. IALA Product Specification Developer is able to draw on any Register in the IHO Registry.	The IALA Product Specification Developer is appointed to manage each IALA Product Specification. The IALA Product Specification Developer coordinates the development of an IALA Product Specification, the usage of existing entries in the IHO Registry that are used by that IALA Product Specification and the creation of new entries required by that IALA Product Specification. IALA Product Specification Developer is able to draw on any Register in the IHO Registry.

3.4.2 IALA S-200 Development Status



Current text	Proposed Revised text
IALA is establishing the S-200 domain, in consultation with IHO. This domain uses the range S-201 to S-299 for product specifications compliant with the IHO S-100 standard, covering fields within the IALA remit, including Aids to Navigation (AtoN), Vessel Traffic Services (VTS), positioning systems and communication systems.	(no change)
IALA has worked closely with IHO and other bodies to develop S-200 product specifications within its areas of responsibility, in particular AtoNs and VTS. A supervisory structure (IALA Guideline 1087) has been established within IALA to manage its domain, which, with the approval of IHO, has been allocated the numbering series S-201 to S-299.	IALA is working closely with IHO and other bodies to develop S-200 product specifications within its areas of responsibility, in particular AtoNs and VTS. A supervisory structure (IALA Guideline 1087) has been established within IALA to manage its domain, which, with the approval of IHO, has been allocated the numbering series S-201 to S-299. *Make the text '(IALA Guideline 1087)' hot link to the guideline.*
	(no further changes to page)

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3.5 Risk Management Tools

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Revise landing page text.

Current text	Proposed Revised text
(new paragraph)	IALA has developed tools for use in assessing maritime risk. These tools approach risk at both a qualitative and quantitative level. Information on the IALA risk tools is provided in Recommendation O-134 – on the IALA Risk Management for Ports and Restricted Waterways and IALA Guideline 1018 on Risk Management. *Make the text 'Risk Management for Ports and Restricted Waterways' hot link to the recommendation.* *Make the text 'Risk Management' hot link to the guideline.*
IWRAP is a modelling tool useful for maritime risk assessment. Using IWRAP you can estimate the frequency of collisions and groundings in a given waterway based on information about traffic volume/composition and route geometry.	IWRAP is a quantitative modelling tool that can assist in assessing maritime risk. Using IWRAP you can estimate the frequency of collisions and groundings in a given waterway based on information about traffic volume/composition and route geometry.
Click here to access the IWRAP Wiki	(no change)
(new paragraph)	PAWSA is a qualitative modelling tool that makes use of expert knowledge when assessing maritime risk.
(new paragraph)	IALA Aids to Navigation Manager Level 1 training includes the use of the IALA Risk Management Tools.

3.6 Calculation and working tools

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Amend landing page

Current text	Proposed Revised text
Page under construction	IALA has developed a number of tools to assist in calculating requirements related to aids to navigation. These include: design of leading lines (Recommendation E-112 and Guideline 1023); electric loads of aids to navigation (Guideline 1067-1); and more. *Make text 'Recommendation E-112' hot link to the recommendation.* *Make text 'Guideline 1023' hot link to the guideline.* *Make text 'Guideline 1067-1' hot link to the guideline.*

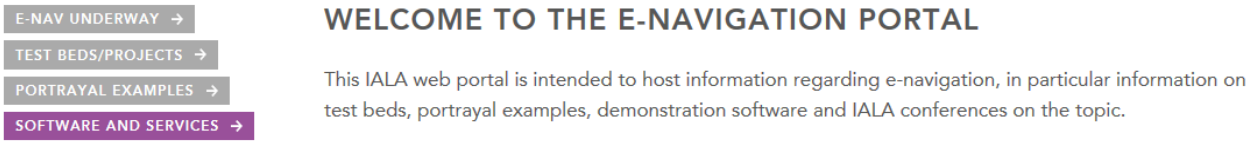
4 E-Navigation

4.1 Landing page

No change to text.

Amend sub-headings to better reflect landing page text.

In addition, confirm the status of the e-navigation frequently asked questions (which no longer appear on the e-navigation portal). If they remain valid, include as a sub-page.



Current sub-page title	Proposed Revised sub-page title
E-NAV underway	E-Navigation Conferences
Test beds/projects	Test beds and projects
Portrayal examples	(no change)
Software and services	(no change)
(proposed re-instated sub-page)	E-Navigation FAQ

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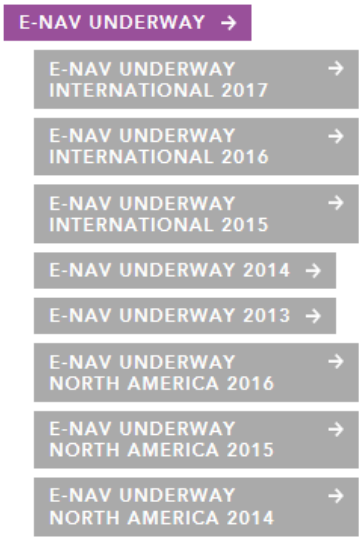
4.2 E-Navigation Conferences

Sub-page title changed to reflect text on landing page '…and IALA conferences on the topic.' Keep grouping of the sub-pages.



4.3 Test beds and Projects

4.3.1 Landing page

Amend the text for the landing page to refer to the guideline for reporting on test beds, then remove the guideline from the sub-page headings.

Provide a more user-friendly listing of the test beds – recommend putting test bed references into a geographical interface, similar to that used for the IALA membership page. Using the existing tools in GIS, indicate the number of test beds in each main area, and enable hover / click to identify the actual test bed. (similar to the example below). Identify test beds that are planned, ongoing, or completed with different colours.

For the listing of the test beds, provide these by region on the left hand – these could be as per the ITU Regional Groupings - http://www.itu.int/en/ITU-D/Pages/Regional-Presence.aspx - Africas; Americas; Arab States; Asia and Pacific; Europe; CIS (Commonwealth of Independent States) Suggest presenting within a table that identifies where the test bed is and status (planned, ongoing, complete).

Current text	Proposed Revised text
Here you can find more specific testbeds and info about these. Request for changes and input of new material: please contact contact@iala-aism.org.	IALA has developed Guideline 1107 on the Reporting of Results of e-Navigation Testbeds. The goal is to enable provision of test bed information in a standard format. *Make text 'Reporting of Results of e-Navigation Testbeds' hot link to the guideline.*
(bring in text from current IALA Testbeds Guideline sub-page / delete sub-page) Download	As a minimum, when providing test bed information for posting to this site, please ensure the following information is included: 1. Submitting Organization

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Current text	Proposed Revised text
IALA Guideline No. 1107 on The Reporting of Results of e-Navigation Testbeds, Edition 1, December 2013 • **Template for posting information** Make sure the following minimum information is present: 1. Submitting Organization 2. Point-of-Contact • name • e-mail address 3. Brief Description (PP Pres or 1-2 page info paper) • Display type (such as RADAR, ECDIS, ECS or Head-up display) 4. Functional Capabilities (types of data à information content) 5. Intended Purpose (including benefits) 6. Portrayal examples (means or methods of portrayal) • good examples • lessons-learned • some concerns 7. Last edited (date) Send information by e-mail to contact@iala-aism.org.	2. Point of Contact ▪ Name ▪ E-mail address 3. Brief description (2-3 paragraphs) and a powerpoint presentation and/or 1-2 page paper. 4. Functional Capabilities (types of data, information, content) 5. Intended purposes (including benefits) 6. If appropriate, portrayal examples (means / method of portrayal). *Note – portrayal information will be provided in the portrayal area of this website.* 7. Indication of last update / edit (date provided in DD/MM/YYYY) Send information by e-mail to contact@iala-aism.org.

4.3.2 Groupings of test beds

In addition to the visual representation of test beds and locations, provide grouping of test beds based on ITU Regional groupings - Africa; Americas; Arab States; Asia and Pacific; Europe; CIS (Commonwealth of Independent States). It is suggested to add in a further category - Polar Regions.

Current sub-page title	Location	Status	Suggested group
ACCSEAS	Europe	Complete	Europe
AMSA VDES	Australia	Complete	Asia and Pacific
ARCTIC WEB	Arctic	Ongoing	Polar Regions
ARIADNA	Europe	Complete	Europe

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Current sub-page title	Location	Status	Suggested group
AVANTI/PRONTO	Europe	Ongoing	Europe
BALTCOAST	Europe	Ongoing	Europe
CASCADE	Europe	Complete	Europe
DUBLIN BAY DIGITAL DIAMOND	Europe	Complete	Europe
E-ATON JTCD	USA	Planned	Americas
EFAIRWAY	Norway	Complete	Europe
EFFICIENSEA	Europe	Complete	Europe
EFFICIENSEA 2 (new)	Europe	Ongoing	Europe
E-FREIGHT	Europe	Complete	Europe
EMAR	Europe	Complete	Europe
EMIR	Europe	Ongoing	Europe
EMSI	America	Ongoing	Americas
ENSI	Finland	Complete	Europe
ESABALT	Europe	Ongoing	Europe
E-SENS (actually A-SeNS)	Europe	Ongoing	Europe
EUCISE 2020	Europe	Ongoing	Europe
E-YANGSHAN PORT	China	Ongoing	Asia-Pacific
FAROS	Europe	Complete	Europe
FLAGSHIP	Europe	Complete	Europe
GREATLAKES – ST LAWRENCE SEAWAY SYSTEM	Canada/USA	Ongoing	Americas
IONO *(note - IONIO same as IONO)*	Europe	Complete	Europe
MARNIS	Europe	Complete	Europe
MONALISA 1.0	Europe	Complete	Europe
MONALISA 2.0	Europe	Complete	Europe
MEH	Malacca Straits	Complete	Asia-Pacific

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Current sub-page title	Location	Status	Suggested group
MUNIN	Europe	Complete	Europe
NORWEGIAN E-NAVIGATION TRIAL	Norway	Ongoing	Europe
POLAR ICE	Polar regions	Ongoing	Polar Regions
SESAME STRAITS PROJECT	Malacca Straits	Ongoing	Asia and Pacific
SHEBA/STORMWINDS	Europe	Ongoing	Europe
SKEMA	Europe	Complete	Europe
SSAP SMART SHIP APPLICATION	Japan	Ongoing	Asia and Pacific
STM VALIDATION	Europe	Ongoing	Europe
TORRES STRAITS / GBR	Australia	Ongoing	Asia and Pacific
WINMOS	Europe	Ongoing	Europe

4.3.3 Revised sub-page structure

Suggested sub-page structure, to complement the GIS display.

Sub-page title	Content
Test beds – Americas	E-ATON JTCD EMSI GREATLAKES – ST LAWRENCE SEAWAY SYSTEM
Test beds – Asia and Pacific	AMSA VDES E-YANGSHAN PORT MEH SESAME STRAITS PROJECT TORRES STRAITS / GBR
Test beds - Africa	No reported test beds at this time.
Test beds – Arab States	No reported test beds at this time
Test beds – Europe	ACCSEAS ARIADNA AVANTI/PRONTO BALTCOAST CASCADE DUBLIN BAY DIGITAL DIAMOND EFAIRWAY

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Sub-page title	Content
	EFFICIENSEA EFFICIENSEA 2 E-FREIGHT EMAR EMIR ENSI ESABALT E-SENS *(actually A-SeNS)* EUCISE 2020 FLAGSHIP FAROS IONO MARNIS MONALISA 1.0 MONALISA 2.0 MUNIN NORWEGIAN E-NAVIGATION TRIAL SHEBA/STORMWINDS SKEMA STM VALIDATION WINMOS
Test beds – Commonwealth of Independent States	No reported test beds at this time
Test beds – Polar Regions	ARCTIC WEB POLAR ICE

4.3.4 Landing Page for each sub-page

For each sub-page present the test beds in a table format, with the name of the test bed hot linked to the current page for the test bed.

For example – on the landing page for the sub-page 'Test bed – Americas'

Test Bed	Status
E-ATON JTCD	Planned
EMSI	Ongoing
GREATLAKES – ST LAWRENCE SEAWAY SYSTEM	Ongoing

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