SLOVENSKI STANDARD
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Elektromagnetna združljivost (EMC) in zadeve v zvezi z radijskim spektrom (ERM) - Standard elektromagnetne združljivosti (EMC) za pomorsko radijsko opemo in storitve - 1. del: Splošne tehnične zahteve

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 1: Common technical requirements

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33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
47.020.70	Navigacijska in krmilna oprema	Navigation and control equipment

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Candidate Harmonized European Standard (Telecommunications series)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 1: Common technical requirements

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Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been produced by ETSI in response to a mandate from the European Commission issued under the Council Directive 98/34/EC [15] (as amended) laying down a procedure for the provision of information in the field of technical standards and regulation.

The provisions of this Multi-part EMC standard apply to marine radio equipment **not covered** in the scope of the Council Directive on marine equipment (the "Marine Equipment Directive" 96/98/EC [6]).

The present document is intended to become a Harmonized EMC Standard, the reference of which will be published in the Official Journal of the European Communities referencing the Council Directive on the approximation of the laws of the Member States relating to electromagnetic compatibility (the "EMC Directive" 89/336/EEC [4] as amended), and the Council Directive on the approximation of the laws of the Member States relating to radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (the "R&TTE Directive" 1999/5/EC [5]).

Technical specifications relevant to the EMC Directive and the R&TTE Directive are given in annex A.

The present document is based upon the standard for marine navigational equipment EN 60945 [3], and other standards where appropriate, to meet the essential requirements of Council Directives 89/336/EEC [4], and 1999/5/EC [5], respectively.

The present document, and its product related parts are based on the current EMC product standards for marine radio equipment published by ETSI. It should be noted that two of these EMC standards have also been published in the Official Journal of the European Commission referring to the EMC Directive.

The present document is part 1 of a multi-part deliverable covering the ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services, as identified below:

Part 1: "Common technical requirements";

Part 2: "Specific conditions for maritime radiotelephone transmitters and receivers";

Part 4: "Specific conditions for Narrow-Band Direct-Printing (NBDP) NAVTEX receivers".

National transposition dates	
Date of adoption of this EN:	23 February 2001
Date of latest announcement of this EN (doa):	31 May 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2001
Date of withdrawal of any conflicting National Standard (dow):	30 November 2002

Introduction

The present document is part of a set of standards designed to fit in a modular structure to cover all radio and telecommunications terminal equipment under the R&TTE Directive [5]. Each standard is a module in the structure. The modular structure is shown in figure 1.

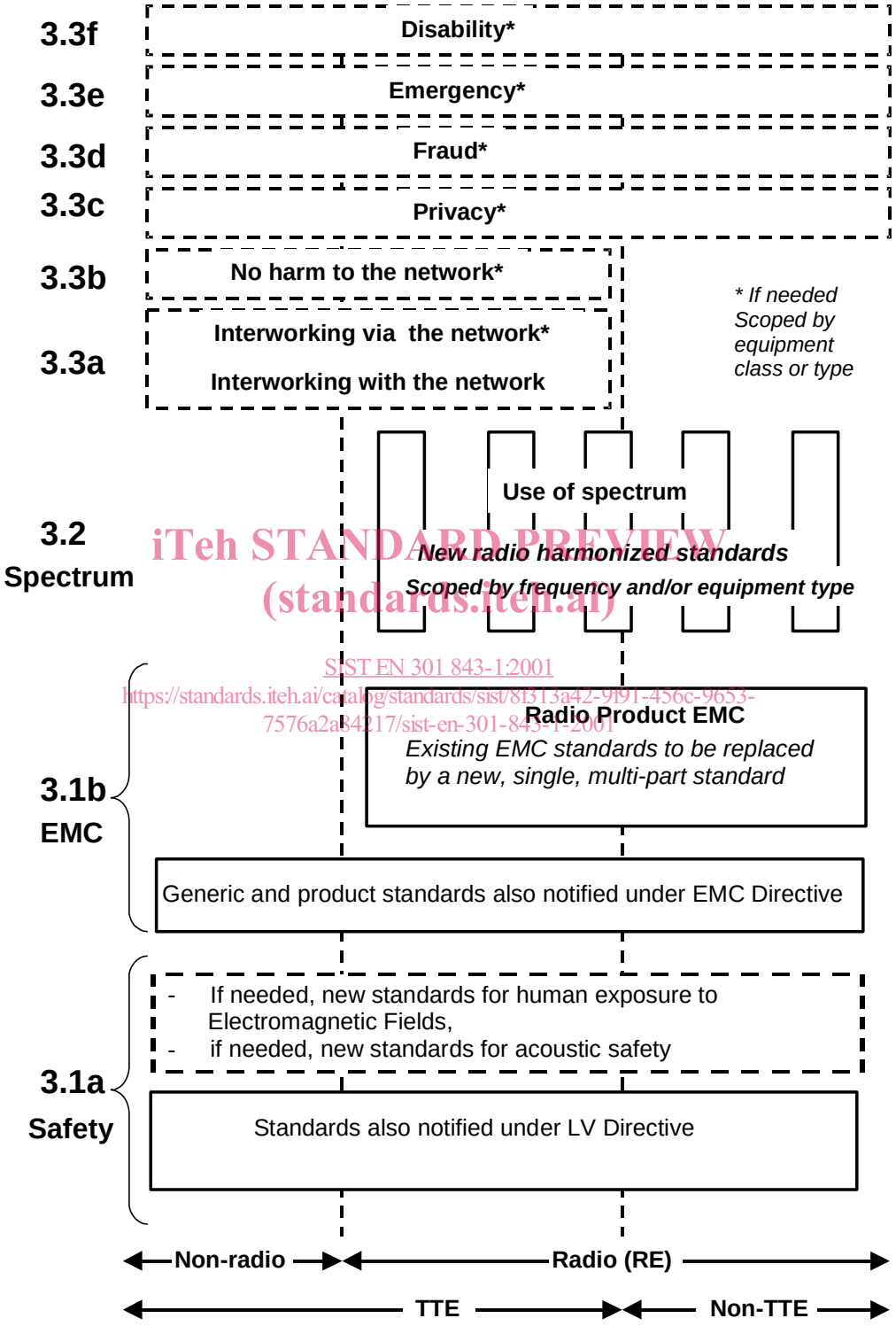

Figure 1: Modular structure for the various standards used under the R&TTE Directive [5]

The left hand edge of the figure 1 shows the different clauses of article 3 of the R&TTE Directive [5].

For article 3.3 various horizontal boxes are shown. Dotted lines indicate that at the time of publication of the present document essential requirements in these areas have to be adopted by the Commission. If such essential requirements are adopted, and as far and as long as they are applicable, they will justify individual standards whose scope is likely to be specified by function or interface type.

The vertical boxes show the standards under article 3.2 for the use of the radio spectrum by radio equipment. The scopes of these standards are specified either by frequency (normally in the case where frequency bands are harmonized) or by radio equipment type.

For article 3.1b the diagram shows the new single multi-part product EMC standard for marine radio equipment, and the existing collection of generic and product standards currently used under the EMC Directive [4]. The parts of this new standard will become available in the second half of 2001, and the existing separate product EMC standards will be used until it is available.

For article 3.1a the diagram shows the existing safety standards currently used under the LV Directive [16] and new standards covering human exposure to electromagnetic fields. New standards covering acoustic safety may also be required.

The bottom of the figure shows the relationship of the standards to radio equipment and telecommunications terminal equipment. A particular equipment may be radio equipment, telecommunications terminal equipment or both. A radio spectrum standard will apply if it is radio equipment. An article 3.3 standard will apply as well only if the relevant essential requirement under the R&TTE Directive [5] is adopted by the Commission and if the equipment in question is covered by the scope of the corresponding standard. Thus, depending on the nature of the equipment, the essential requirements under the R&TTE Directive [5] may be covered in a set of standards.

The modularity principle has been taken because:

- it minimizes the number of standards needed. Because equipment may, in fact, have multiple interfaces and functions it is not practicable to produce a single standard for each possible combination of functions that may occur in an equipment;

- it provides scope for standards to be added:

  - under article 3.2 when new frequency bands are agreed; or

  - under article 3.3 should the Commission take the necessary decisions

  without requiring alteration of standards that are already published;

- it clarifies, simplifies and promotes the usage of Harmonized Standards as the relevant means of conformity assessment.

Figure 2 gives an enlargement of the EMC layer which is judged to be appropriate in view of this harmonized standards derivation.

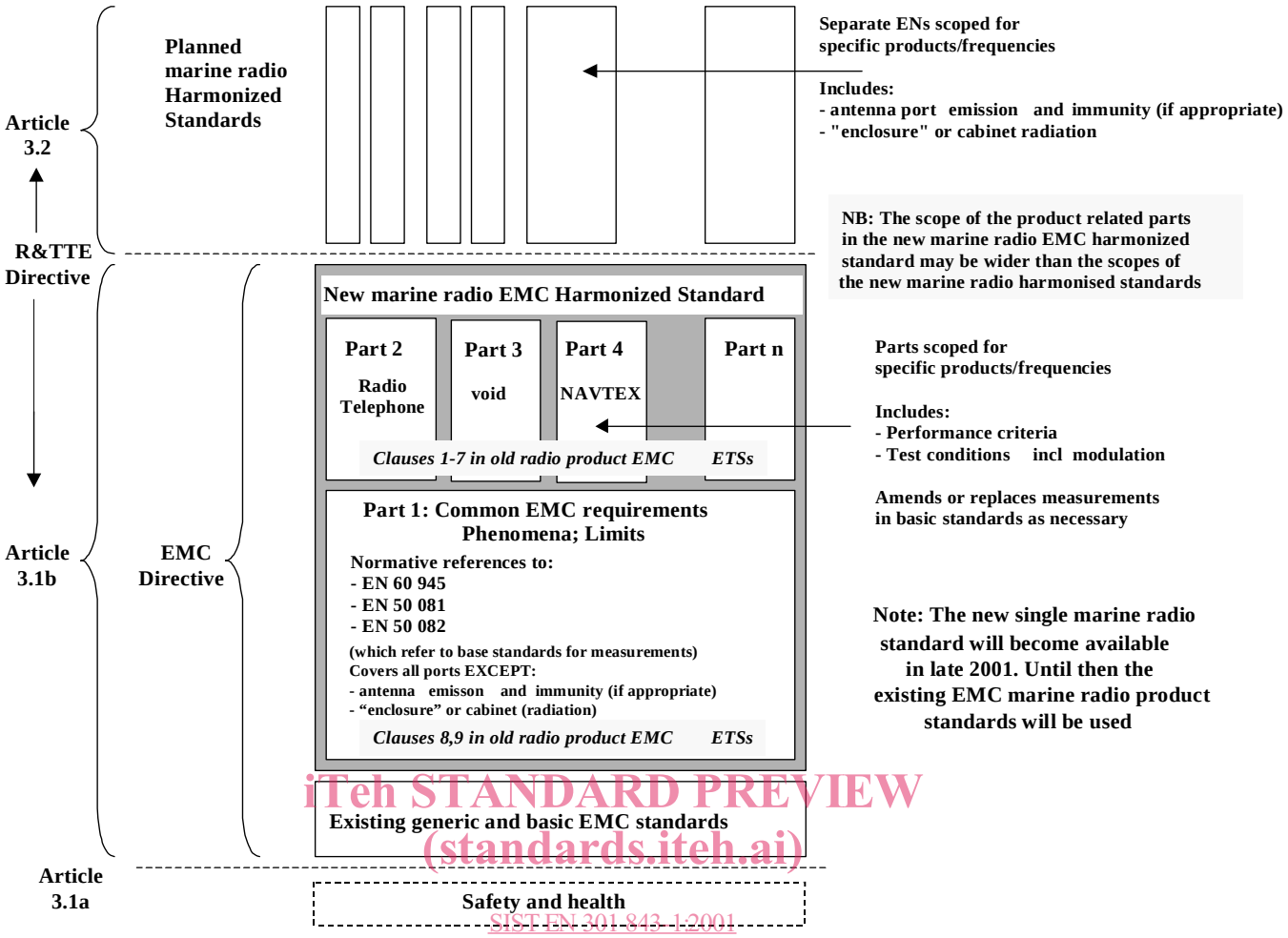

Figure 2: The new radio EMC harmonized standard

The current EMC product standards for marine radio equipment are all structured as follows:

Clauses 1 to 6 contain information specific to the type of radio equipment covered by the present document:

- clause 1: Scope;
- clause 2: References;
- clause 3: Definitions and abbreviations;
- clause 4: Test conditions and configurations;
- clause 5: Performance assessment; and
- clause 6: Performance criteria.

Clause 7 contains the applicability overview tables for emission and immunity.

Clause 8 contains the emission requirements and clause 9 contains the immunity requirements. The requirements set out in these clauses are however identical for all types of marine radio equipment.

A new structure for these standards has been prepared.

This structure is made up in the following way:

- the present document contains all common technical requirements for emission and immunity;
- separate parts cover product related specific marine radio equipment test conditions, test arrangements, performance criteria, normal test modulation, etc.. Further work may be underway in the development of further parts of the present document for other types of marine radio communications equipment;
- one new clause has been added to each of the specific radio parts of this standard entitled "Special conditions", if appropriate. This clause contains any deviation from the common requirements set out in the present document.