MARINE SECTOR SERVICES
Türk Loydu was founded in 1962 by foremost organizations with the aim of applying international standards and providing technical progress in both marine and industry sectors in Turkey.

Türk Loydu which was founded by TMMOB The Chamber of Turkish Naval Architects and Marine Engineers and with the participation of various esteemed partners such as The Association of Insurance and Reinsurance Companies, Turkish Union of Chambers and Exchange Commodities (TOBB), Chamber of Shipping, İstanbul Chamber of Industry, Association of Engineers and Architects in Turkey, Ship Owners Association, Ship Builders Association, Boiler and Pressure Vessel Industrialists Association, is an internationally recognized foundation today, that provides services in the field of “Classification and Conformity Assessment” globally.

By means of informing its partner sectors; Türk Loydu take part in shaping the future by means of following the developments in marine and industry sectors throughout the world in the process of forming rules and standards.
New Construction Classification (Commercial Ships & Yachts & Water Crafts)

Proof of the conformity of manufacture and assembly of all types of commercial ships, pools dry docks and sea crafts is possible with production in accordance with the standards, rules and international agreements (legal requirements) as well as supervision by independent and competent conformity assessment bodies.

Advantages of classification:
- Provision of life, property and environmental safety.
- Proof of the reliability of the vessel.
- Documentation that the quality requirements have been covered in accordance with the rules, standards and the legislation.
- Reduced insurance cost.

Services provided by TÜRK LOYD and its authorizations:
Türk Loydu is a Type A Inspection Institution accredited by Türkak according to ISO/IEC 17020 and ISO/IEC 17065 standards. Within the scope of classification of any commercial vessel, dry dock and sea craft constructed under the control of Türk Loydu, the relevant vessels’, machinery and electrical projects are checked and approved according to Türk Loydu rules.

After performing hull, machinery and electrical surveys according to the relevant vessel projects which is approved by Türk Loydu and completing HAT and SAT activities under the supervision of Türk Loydu surveyors, class certificates is issued.

Türk Loydu, which has a significant experience and know-how in the new building classification of passenger boats, tugboats, hopper barges and dredgers, has not only successfully completed the classification of the above mentioned vessel types but also of different types of vessels such as research vessels, fishing vessels, tankers, support vessels, etc. and still continues to do so and Türk Loydu is also involved in the development of innovative projects such as "Battery-operated ships" also Rule development and classification activities of the this vessel is being progressed at the same time.

Türk Loydu is performing its classification activities successfully at the domestic locations such as İstanbul, Antalya, Marmaris, Karadeniz Ereğli, Trabzon, Samsun and Tatvan as well as overseas locations such as Azerbaijan and Turkmenistan by means of its expert surveyors located in it’s Istanbul head office, Marmaris and Antalya.
New Construction Classification (Naval Ships)

Türk Loydu has performed the classification services of more than 100 local and foreign projects with an experience of fifty five years in the classification of naval vessels. With this historical background, it is one of the leading classification societies both in the World and in Turkey with regarding to classification of naval ships. Even though the classification of naval vessels is not an obligation, the classification of naval vessels creates environment of trust to protect all relevant parties; which is the shipyard, Under secretariat for Defense Industries and Naval Forces Command due to the classification society's independent, impartial structure and rule systematics.

Advantages of classification:
• Provision of life, property and environmental safety.
• Ensuring the safety of the ship.
• Transfer of experience gained on commercial ships to naval vessels.
• Direct and positive contributions to the final product quality of audits that will be carried out independently from the command chain.

Services provided by TÜRK LOYD and its authorizations:
Türk Loydu is a Type A Inspection Institution accredited by Türkak according to the ISO/IEC 17020 standard.

Türk Loydu is a member of the International Naval Safety Association (INSA) and Naval Ship Classification Association (NSCA).

Türk Loydu is one of the world's leading class organizations in the field of classification of naval ships and has provided or continues to provide services for more than 130 naval Projects not only for the Turkish Navy but also for overseas countries such as Qatar and Turkmenistan since 1995. From 1995 till now, with it’s experienced and dedicated staff Türk Loydu has performed classification of naval projects vary from support vessels such as Logistics Support Vessels, Underwater Rescue Vessels and Backup Vessels to combat vessels such as corvettes and frigates.

With the increasing momentum of Türk Loydu since its establishment in 1962, it has created and updated its naval rules and has been providing both industrial experience and increasing the performance of its services.
Recreational Crafts Conformity Assessment Services


As of the year 2008, Türk Loydu has issued attestation reports for 16 recreational crafts after performing the necessary tests and calculation approvals within the scope of Module Aa (stability and buoyancy) until the beginning of 2017, based on the authority of the mentioned regulation. In addition, in the same time period Türk Loydu had issued attestation reports by evaluating conformity with the technical file control within the scope of Module G (Unit Verification) for 13 recreational crafts and Modul B (Type Examination) for 19 excursion boats by conducting audits and tests within the scope of basic requirements.

Within the scope of the conformity assessment of the components listed in Annex-2 of the Regulation, 2 portholes within the scope of Module B (Type Examination), 3 steering gear within the scope of Module B (Type Examination), 3 fuel hoses under Module B (Type Examination) and 12 fuel tanks conformity assessment under Module B (Type Examination) and Module G (Unit Verification) were conducted and attestation report was issued. For one recreational craft, conformity assessment was conducted within the scope of noise emission and the attestation report was issued accordingly.

From this date until the end of 2016, Türk Loydu continued to carry out the conformity assessment activities of the recreational crafts and their components. Thus, Türk Loydu issued attestation reports for 49 recreational crafts and 21 components between these dates until the beginning of 2017.

The Directive 94/25/EC on Recreational Crafts (2003/44/EC), which had been in effect for 22 years since its publication in 1994, has been abolished from the enforcement on January 17, 2017 and has been replaced by the European Union 2013/53/EU published on December 18, 2013. This new regulation was published on May 5, 2017 under the name of "Regulation on Recreational Crafts and Personal Water Crafts". Getting authorization to be an assessment body for the new regulations is in progress.
Product-Material, Type Approval, Service Provider Certification

Navigational, propulsion and safety equipments of the cargo ships, yachts, recreational crafts etc. which is constructed or converted under the control of the Türk Loydu must be certified by Türk Loydu.

In addition to the equipment which has to be certified by Türk Loydu, there is equipment which does not require any certification from Türk Loydu. It should be noted that these equipment’s control by a third party or an independent and impartial body is important in the terms of customer trust, marketing convenience and contribution to continuous development.

Product-material certification is a preferred type of certification when singular or batch production is performed and is preferred in cases where a unique product is produced each time, not in mass production.

Type Approval Certification is a type of certification that can be preferred for mass production or multiple productions. This certificate states that manufacturer has facilities and conditions for producing demanded product. It offers time and cost saving in the certification of mass produced and multi-product products.

During the classification process, in order to ensure necessary outsourced inspections includes testing and control services are carried out in accordance with the Türk Loydu rules and/or international rules. Türk Loydu evaluates qualification of candidate parties if it is deemed adequate. Türk Loydu issues Service Provider Certificate which enables these parties to provide necessary control and testing services for the vessels under Türk Loydu class.

Personnel Certification is a service to certify the welders who will be working in welding and underwater welding manufacturing methods by assessing the damaged and/or undamaged test results of the test parts which is welded by relevant welders under the surveillance of the Türk Loydu surveyor. Türk Loydu holds the ISO 17024 Personnel Certification accreditation from TURKAK regarding certification of welders.

Türk Loydu offers certification services to its companies and suppliers on site in the shortest time possible with its specialist certification staff all across the world.
Tugboat Bollard Pull Certification

Türk Loydu provides towing test certificate to tugboats constructed under its class, as well as tugboats currently operating made under the surveillance of the other classes upon the requests of the shipowners or flag societies.

The Bollard Pull test is to certify the tug boat’s maximum and continuous pull force that its propeller can carry out. In this process a tow rope from the tug boat is attached to a fixed land bollard and the pull force is being read from a dynamometer with a valid certificate of calibration.

Türk Loydu issues an average of fifty tug boat bollard pull test certificates per year and according to the availability, the dynamometers with a calibration certificate can be leased at various capacities depending on the fee.

Due to the reasonable price and the ability to arrange the personnel at any time, Türk Loydu continues to be the preferred class society for the bollard pull test certification works.

Issues to be noted during the bollard pull test:

1- All equipment that may affect the performance of the ship must be in operating condition.
2. In particular, main engines must be operational in the maximum continuous rating (MCR) recommended by the manufacturer.
3- The tow rope to be used must be more than 2 times the pulling capacity of the tug boat and with a length of at least 100 meters long.
4- The depth of the place where the bollard pull test is being performed must be at least twice the draft, and it should not be less than 10 meters.
5- During the test, tug boat should be even keel or aft trim should maximum 2% of the total length.
6- The tow bollard pull test duration cannot be shorter than 10 minutes.
7- During the test, the wind force at the test zone should not be more than 5 m/s and the flow rate should not be more than 0,5 m/s.
8- In consideration of the environmental factors, a test environment appropriate to OHS (Occupational Health and Safety) rules should be provided.


Conversion Surveys

According to the Regulation on Construction, Conversion and Repair and Maintenance of Ships and Water Crafts

Class requirements are set out below;

a) The construction and conversion of new ships and water crafts with a full length of 24 meters or more,
b) The new ships with a full length of 24 meters and above as a result of the conversion,
c) The existing passenger ships with a full length of 24 meters and above as a result of the conversion,
d) In the case the number of the passengers of the existing passenger ships with a full length of 24 meters and above exceeds 12 passengers either being converted or not,

Türk Loydu carries out the approval of requested plans and control these approved plans on the relevant vessel and issues an attestation report that indicates all these processes and give registration services for all kind of converted ships, yachts, water crafts, etc. upon the request of the ship owners and flag states.

The modifications of the Türk Loydu ships' hulls or machinery are carried out as if the surveys were in accordance with the approved details as in the new building process.

Türk Loydu approves the "Mid ship section – strength module calculation, longitudinal sections and decks, Watertight Bulkheads, Shell Plating, Scantling Calculations, Lines Plan, General Arrangement Plan" drawings upon the request of the administration in the projects that is initiated without a construction permit and does not require any classification activities. After approving relevant drawings Türk Loydu controls the project according to these drawings and issue attestation report.
Value Assessment Controls - Technical Consultancy Services

A company can take credit from a bank if only the value of its assets meets the requested loan amount. In this case, the bank may request a value assessment report.

Value assessment report can be required in the scenario of termination of a company partnership or termination of company or ship owners may request to learn their assets’ present value so value assessment surveys and reports will be needed.

Türk Loydu makes value assessment surveys and issue survey reports for all vessels, yachts, water crafts, etc. upon the request of the shipowner and/or the bank.

Türk Loydu, with reliability which is provided by being impartial and independent company, with flexibility in meeting requested program schedule and with competitive price policy, proving this service via sub company called TL Teknik Ar-Ge Tasarım Ltd. Şti.

A technical specification is signed between the public or private organization that will make the ship and the company that will construct the ship, including all the technical specifications of the ship as well as a commitment to how it will be performed when the ship has been completed. It is expected that the representatives of the shipbuilding company shall be present at all stages of the construction of the ship and the ship is checked that it has been constructed in accordance with the technical specifications. For these checks, depending on the type and size of the ship, it may be necessary to have/employ more than one expert staff. (For example, separate personnel for vessel inspections, machinery inspections and paint inspections)

TL Teknik Ar-Ge ve Tasarım Ltd. Şti. provides technical consultancy service for the parties according to the agreement between the shipowner and the shipyard. It makes specification compliance audits and issue reports with its large pool of the expert personnel.
Pre-purchase / Condition Surveys

When the ship owner decides to buy an used ship, he must get correct information about it. The selling party may not give enough information about ship, whether it is the owner of the vessel or an intermediary. The best decision to buy an used ship is to have it checked by an expert.

The pre-purchase survey is requested from the Türk Loydu, usually by the potential buyer before the purchase of the ship. The defects identified in the prepared survey report can significantly reduce the value of the ship and require a substantial investment to correct it. A defect or malfunction that occurs during the survey may seem very minute whereas it may require a high price to be repaired or eliminated or a failure that is considered a serious expense item may be eliminated at very small costs.

The pre-purchase survey report is a summary of the surveys carried on board. It includes information on whether the ship complies with its class rules and international rules or not and also gives details about the overall condition of the existing systems. The report is supported by various photos and documents.

The scope and time of the pre-purchase survey depends on the type and size of the ship. In cases where a special condition is specified by the buyer, examination and reporting are carried out according to the relevant situation. In the survey report organized by the surveyor, in addition to the general condition of the ship, all defects and failures seen on board are notified in written form.

Pre-purchase / Condition Surveys often include the following:

- Structural integrity of the ship (vessel structure, tanks, covers)
- Main and auxiliary machinery,
- Documents (Ship certificates, PSC records, ISM records, legal records, etc.),
- FFE / LSA equipment,
- Main drive and auxiliary machinery fuel consumption,
- Bridge equipment,
- Accommodation,
- Mooring equipment,
- Main spare parts on board,
Class Entrance and Periodic Surveys of Ships and Floating Docks

Transfer of Class (TOC) procedure implements to the vessels and the floating docks to be classified by Türk Loydu by considering whether they are already classified by member societies of the International Classification Organizations Association (IACS) or not.

Class transfer procedures have been established by the IACS and include clear information on the responsibilities of existing and former class organizations and the required documents and information to be sent in TOC survey procedures. Class transfer procedure can be initiated at any time by contacting the Türk Loydu head office.

Class entry surveys begin with the ship-owner’s application to enter the class. The necessary plans after the appraisal of the application and its acceptance are sent for approval by the shipowner. Additional plans may be required depending on the ship type, size, characteristics, flag state and navigation zone. After information about the audit site is given, the necessary surveys are initiated. Certificates and necessary documents are published after the surveys have been successfully carried out. There is no age restriction for TOC. TOC surveys can often be combined with periodic surveys at the same time to limit ship operations and minimize costs. The Türk Loydu notations equivalent to the notations granted by the previous Class organization to the ship are given to the ship.

In addition to realizing the class transfers of the operating ships, Türk Loydu successfully performs the class entrance surveys of the floating docks. Periodic surveys of floating docks that are in operation in the shipyards can be performed together with the time of taking or removing ships to the pool in time. This is preferred in order to limit floating pool operations and reduce costs.

After the class transfers are completed and the registration procedures of the vessels taken into the Türk Loydu complex are successfully completed, a class certificate valid for 5 years is granted. In order to ensure that the vessels under the Türk Loydu class maintain and operate these conditions in accordance with the Türk Loydu rules, periodic surveys are carried out as a condition for the residence of class certificates in these ships. The surveys of the vessels and marine crafts under the Türk Loydu class are fulfilled in a timely manner and in full accordance with the demand.
Extraordinary Survey Services

The vessels that are under the Türk Loydu class and have a 5 years valid class certificate must have the damage repair and extraordinary surveys on time in order to maintain the class certificate.

In the event of damage repair and unusual surveys not being carried out on time, the class of the vessel is automatically suspended and this is communicated in writing to the Shipowner and to the Flag State.

Extraordinary periodic surveys are made under the following situations:

- Determination of 5% of the ships with Turkish flags navigating internationally under Türk Loydu management every year and the extraordinary surveys benig carried out together with the Flag State experts.
- Performance of surveys of 10% of the vessels operating under Türk Loydu fleet designated as the target vessel by the Türk Loydu PSC commission.
- Extraordinary survey application on the ship after the PSC detentions.

Surveys that need to be performed extraordinarily shall be notified to the shipowner / operator firm in written form and shall be carried out successfully at the time of the surveys by making the necessary planning. The activities of the performed surveys are evaluated by the Türk Loydu PSC Commission throughout the year. As a result of the evaluation, further measures shall be resolved to improve the condition of the vessels in the Türk Loydu fleet.

Damage and repair surveys are conducted in accordance with the Türk Loydu regulations. As a result of alternative solutions and specialist surveyors approach in accordance with the regulation, the availability of the vessels to the sea is ensured as soon as possible.

As a result of the changing economic indicators and increasing operating costs in the maritime community, time management has become a very important issue. Türk Loydu has aimed to meet the services requested in order not to disrupt the programs of the operated vessels in a timely and effective manner. TOC surveys can often be combined with periodic surveys at the same time to limit ship operations and minimize costs.
Maritime Management Systems Certification (ISM, ISPS, MLC2006)

The aim of the ISM Code is to establish international safety standards in ship operation to ensure that vessels are managed and operated safely and to protect the environment from pollution and from sea collision.

The Ship Safety Management Certificate, referred to as the SMC in this context, is issued to the vessels certified by the ISM Code requirements for inspections carried out by the company in accordance with the approved ISM Handbook for office and ship operations. The ISM DOC Certificate is the basic condition for acting as a ship operating company.


Türk Loydu, with the authority it has obtained from various Maritime Administrations, is authorized to inspect the compliance of the ISM Code requirements of companies and ships, approve the ship safety plans and to offer services related to ship safety verifications and granting of international certificates.

It shall share with the Maritime Administration all kinds of information and documents related to the inspections carried out within the framework of the authority of Türk Loydu Maritime Administrations and shall keep the expert supervisors and the ship operators and the vessels operated by them subject to inspection. MLC 2006 covers a wide range of issues involving employment contracts of seamen and the obligations of the maritime companies on these contracts as well as the working hours, health and safety, living spaces, standards of occupancy and well-being of seamen.

The effective implementation of the MLC 2006 requirements for ship control size on Turkish flagged vessels is important in terms of maintaining the position in the white list on the Paris MoU performance list.

As the result of the MLC inspections carried out by Türk Loydu expert inspectors, the vessels are provided with safe operation and their performances are enhanced in Port State Controls.
Flag State Services-Compulsory Certification

Türk Loydu has been authorized by 18 flag states, mainly Turkey and Panama, to inspect the activities performed on behalf of the relevant flag, approval of documents, performance of surveys and audits and publishing of the relevant certificates pursuant to the international rules stated below.

- SOLAS
- MARPOL
- LOAD LINE
- Tonnage
- ILO
- MLC 2006
- AFS
- BWM
- ISM/ISPS

Türk Loydu provides a flag state surveillance and certification services as an authorized organization from 18 countries that are members of the International Maritime Organization (IMO).

- Turkey
- Panama
- Azerbaijan
- TRNC
- Palau
- Kiribati
- St. Kitts and Nevis
- St. Vincent and Grenadines
- Cook Islands
- Comoros Islands
- Mongolia
- Syria
- Libya
- Moldova
- Lebanon
- Cambodia
- Dominica
- Tuvalu

The statutory surveys and the international conventions and codes laid down by the IMO are carried out strictly following the national rules of the flag states authorizing the Türk Loydu. Türk Loydu has been authorized by various Maritime Administrations to carry out mandatory surveys of ships and yachts.

In addition to class and mandatory surveys of yachts, technical consultancy services have started to make Türk Loydu a preferred class organization for the classification of yachts.
Plan, Approval and Engineering Division

The approval of stability, machinery, electrical projects and statutory documents (all necessary documents and manuals related to SOLAS, MARPOL, LOAD LINE, TONNAGE, ILO, MLC 2006) for the vessels, recreational crafts, water crafts and naval vessels constructed or to be modified under Türk Loydu Class are the main activities of the Plan Approval and Engineering Division. Projects are also approved under the certification of the equipment used in these vessels.

- Control and approval of the theoretical calculations of the ships (intact stability, damaged stability, longitudinal strength, grain loading, bulk loading, freeboard calculations, tonnage calculations, etc.)
- Structural design analysis of lifting devices and their local structures using the finite element method,
- Compliance check of the Inventory of Hazardous Materials for ships and regulation of the Certificate of Conformity,
- Verification of EEDI technical file under IIEC certification,
- Structural analysis of the propulsion systems in terms of vibration (such as torsion, bending and shaft line)

Global Strength Analyses: The 3D finite element model analysis of the response of the ship beam to the global loads is carried out to increase the amount of cargo to be carried by reducing the weight of the ship with more realistic elements by scantling the ships according to the structural stresses with real loads.

Local Strength Analyses: Where local rules do not apply or where it is necessary to demonstrate the structural strength by direct calculation methods, the construction of the local strength calculations should be done.

Linear and Non-linear Buckling Analyses: Calculation for the ultimate strength of the ship’s beam. The actual safety limits of the ship beam are calculated by this means. Critical loads and ultimate strength are controlled by linear or nonlinear buckling analysis for deck, side and bottom panels.

Global Vibration Analyses: Vibration-induced weaknesses in the ship are avoided with the control and approval of the natural frequencies of the hull girder and the superstructure and the vibration mode shapes with the finishing elements.

Local Vibration Analyses: Comparisons are made between the resonance frequencies of the local structures such as deck and superstructure panels, tank walls and the mode shapes account.

Forced Vibration Analyses: The calculation of the reaction of the
structure to the dynamic propulsive forces

**Impact and Dropping Simulations**: Simulation of the dynamic response of the structure due to free fall or impact. **Shock Analyses**: The reaction of the construction to the shock load depending on the time, the calculation of the stresses and deformations formed in the structure due to the shock loads.

**Common Structural Rules (CSR)**: Global strength, fatigue and buckling analyzes and ultimate strength calculations using the 3D model of the cargo area and the finite elements method, which are required by CSR for oil tankers and bulk carriers.

**Static and dynamic structural analyzes for land industry and marine structures**: Structural dynamics and static analysis, drop test and source simulations.

**Document approvals for naval vessels**: Analyses are conducted pursuant to the customer technical specification requests (STANAG, ANEP, NAVSEA etc.).

The plan approval services of the other commercial vessels are made electronically via EPAS (Electronic Plan Approval System), except for the projects with a degree of confidentiality of naval projects.

In addition to the classification activities, it is provided with the visa of the Shipyard Settlement Plans with the authority given by the national regulations and the control and approval of the calculations showing that the floating docks are connected safely. We ensure the safety of the system by ensuring the safety of the life and property of the accounts of the connection of the floating dock securely and also the selection of the vault at the appropriate capacity for the continuation of the investment of our customer.

It provides services for the control and approval of the plans of Multi-Point Mooring Systems for tankers as well as services to prevent accidents that may occur during the filling and discharging of dangerous cargoes and prevention of the risk of damage to the environment.

Within the scope of Maritime Guarantee Survey Services, conformity assessments of maritime operations, project controls and approvals according to international rules/standards, risk assessment services are provided.
Rule Development Activities

For Marine Sector to grow and succeed, it needs a strong Rule Base and Documentation. Rules set appropriate standards for design, construction and lifetime maintenance of ships and ensures safety and prevention of marine related pollution. The rules should always be kept up-to-date, and that is of a paramount importance for services to be smooth, valid and in compliance with statutory requirements. It is where the Rule Development and Statutory Legislation Division (RDSLD) acts and co-ordinates this important role within Türk Loydu.

However keeping rules up-to-date is rather a complex process as there are many inputs to the system it requires a strong infrastructure and that infrastructure is also to be in compliance with IMO RO (Recognised Organisation) Code.

For smooth and successful operation, each item needs to be scrutinized. Service feedbacks are really important for Türk Loydu, these are the essence of development and therefore highly encouraged by Türk Loydu inside and outside. When surveyors or plan approval engineers or any client find a problem or rooms for improvement in the rules, it can report to RDSLD and RDSLD addresses the case and evaluates this request within the organisation by its rule development commissions.

IACS (International Association of Classification Societies) Resolutions are another input to rule development and these resolutions are to be adopted by Türk Loydu for IACS Membership, a strategic goal of Türk Loydu. IACS Resolutions are followed by Türk Loydu in a strict manner by this division and the resolutions on various instruments such as class rules and interpretations to statutory conventions and codes are implemented with the co-ordination of this division into whole documentation including rules, procedures, instructions, and check lists.

Each Flag State can have its own implementation in national and international level, and authorised ROs should take these circular or directives into account during survey and plan approval works. The up-to-date information regarding each flag state’s implementation is to be provided into related staff and that is another core business of RDSL Division.
Development of Research Projects and New Services

Research is of the utmost importance for the core business of a classification society. Türk Loydu Foundation has established a specialised company “TL Teknik Ar-Ge ve Tasanm Ltd. Şti” for Research and Development, and this company evaluates new research fields, national/international fundings and possible co-operations. In another perspective, Türk Loydu carries out research for improving its knowledgebase and its capacity, and also to stream these developments outputs to its rules. Co-ordination and execution of the research projects with the support of “TL Teknik Ar-Ge ve Tasanm Ltd. Şti” and its own team are also the responsibilities of this division.

Industry Needs are another leading factor for the development of the rules, new technology and its application into Maritime Sector, can bring new challenges to both the industry and classification societies, and it is a perfect opportunity for rule development and inter-disciplinary work involving universities, classification societies, and the industry. Türk Loydu is open to collaboration in any level from the industry or universities, and has agreements with universities in this respect. This division also acts as a contact point for such Joint Industry/Development Projects.

For continuous development of Türk Loydu’s Services in light of international developments and advance in technology, new services should be devised and current services should be updated. Management and co-ordination of these services are in the scope of this division. In recent years, development of rules with respect to goals, and update of rules with defined goals and their application have been carried out in international level. One of the important application for these type of standards is the “Goal Based Ship Construction Standards for 150m and over Bulk Carriers and Oil Tankers”. Construction and Classification of these types of ships within this scope can only be made with verified Rules by IMO in compliance with the Standard and its verification guideline. Furthermore, this verification of rules, in light of revisions should be maintained and re-verified. It is highly possible that the verification of rules will also be extended for other type of large ships. Co-ordination and management of related Work in this context are also performed by Rule Development and Statutory Legislation Division.
Support and Participation into International Meetings

IMO (International Maritime Organisation) is one of the main source of input for Rule Development since it mainly lays down the statutory requirements to be followed in an international level in accordance with Flag State Implementations. IMO consists of Council, Assembly, Committee, Sub-Committee and technical groups. Two main Committees and six Sub-Committees directly effecting the rule development can be regarded as follows:

- Maritime Safety Committee (MSC)
- Marine Environment Protection Committee (MEPC)
- Sub-Committee on Ship Design and Construction (SDC)
- Sub-Committee on Pollution Prevention And Response (PPR)
- Sub-Committee on Navigation, Communications and Search and Rescue (NCSR)
- Sub-Committee on Ship Systems and Equipment (SSE)
- Sub-Committee on Carriage of Cargoes and Containers (CCC)
- Sub-Committee on Implementation of IMO Instruments (III)

RDSLĐ with its personel and with dedicated experts in Marine Sector follow and contribute the development of the rules in international level in its core at International Maritime Organisation by participating into the Committee and the Sub-Committee Meetings. Outcome of these studies are also announced to the Sector and in this way, the Sector are informed about future mandatory or recommendatory regulations, and accordingly necessary planning and resources can successfully be allocated in advance of the entry into force dates of the regulations. Revisions to Türk Loydu Rules and related documentation are also made by the co-ordination of this division in order to ensure compliance of Türk Loydu Rules and ships in service under Türk Loydu Class with respect to international regulations.

Türk Loydu provides services heavily for Naval Sector in recent years. This driving force opens new challenges and opportunities for development of Türk Loydu’s expertise and it is another development source of its rule base. Türk Loydu is a proud member of International Naval Safety Association and Naval Ship Classification Association and Rule Development and Statutory Legislation Division acts as a contact point and contributes development of Naval Ship Rules in international level. In addition to these meetings, Türk Loydu also participates in Sectoral Meetings of European Union and related OECD Meetings.
Monitoring, Reporting and Verification of CO₂ Emissions in Shipping

In parallel with a steady increase of environmental awareness in the world, new requirements for greenhouse gas emissions in shipping came into force. Türk Loydu provides verification/certification services within the scope of these new requirements developed by IMO and the European Union with respect to monitoring, reporting and verification of greenhouse gases (CO₂) in shipping as follows:

- EU MRV Shipping Regulation - (EU) 2015/757 (Monitoring, Reporting and Verification)
- IMO MEPC 278 (70) - IMO Data Collection System (DCS).

In accordance with Marpol Annex VI, Regulation 22A, in the case of a ship of 5,000 gross tonnage and above;
- The Ship Fuel Oil Consumption Data Collection Plan, Part II of SEEMP (Ship Energy Efficiency Management Plan), to be prepared and to be approved until 31 December 2018.
- As of the calendar year 2019, fuel consumption data must be collected from the calendar year of 2019 and the subsequent years in accordance with the method defined in SEEMP.

As per the EU MRV Shipping Regulation requirements, for each ship above 5,000 GT and calling ports of the EEA States (EU member states, Iceland and Norway) it is obligatory that:

- A Monitoring Plan is submitted to Türk Loydu until 31 August 2017,
- From 1 January 2018, consumption data in accordance with the EU MRV Shipping Regulation are to be collected and verified annually.

IMO DCS and EU MRV Shipping Regulation requirements differ in terms of initial date of data collection, types of data collected and implementation.

Türk Loydu, within the scope of the IMO DCS ve EU MRV Shipping Regulations, offers services for the approval of SEEMP revisions, assessment of the compliance of the collected data and the relevant certification procedures by taking into account amendments to IMO/EU regulations and applicable instructions of the Flag States.
Ship Recycling and Hazardous Materials Inventory (IHM) Services

In order to reduce the risk of hazardous materials, used extensively in the past, but limited in quantity due to the new regulations entered into force in recent years, in the ship recycling process within the scope of following regulations developed by the IMO and the European Union,

- The EU Ship Recycling Regulation (EU SRR) – (EU) 1257/2013
- IMO Hong Kong Ship Recycling Convention (IMO HKC)

Türk Loydu provides;

**Services for ships:**
- Verification of compliance of new constructions with an additional class notation.
- Issuance of “Document/Statement of Compliance” of “Inventory of Hazardous Materials” for new and existing vessels
- Issuance of “Document of Compliance” for “Ready for Recycling” for the vessels to be recycled

**Services for ship recycling facilities:**
- Issuance of “Certification of Conformity” for management systems according to international standards
- Issuance of “Document of Compliance” for the authorization of ship recycling facilities

Even though IMO HKC has not entered into force, as per the EU SRR rules in force, it is imperative that:

- regardless of the flag, for the Port State Inspections to be carried out as of 31 December 2020, the vessels 500 GT and above and calling EU ports should hold a Statement of Compliance for Inventory of Hazardous Materials compliance and keep Inventory of Hazardous Materials on-board.
- for new ships as defined in the EU SRR, Inventory of Hazardous Materials are to be prepared and Statement of Compliance for the Inventory of Hazardous Materials are to be issued from 31 December 2018.