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Pregledni članak
Review article

UDK / *UDC*: 656.61.022.86(4:497.5)

Primljeno / *Received*:
1. travnja 2011. / *1st April 2011*
Odobreno / *Accepted*:
2. svibnja 2011. / *2nd May 2011*

PRIOBALNO PROMETNO POVEZIVANJE U EUROPI – ČIMBENIK ODRŽIVOG RAZVOJA PROMETNOGA SUSTAVA REPUBLIKE HRVATSKE

SHORT SEA SHIPPING IN EUROPE FACTOR OF THE SUSTAINABLE DEVELOPMENT TRANSPORT SYSTEM OF CROATIA

SAŽETAK

Porast prometa, tereta i putnika doveli su do preopterećenja cestovnih pravaca koji više ne mogu apsorbirati rastuću količinu prometa, što je rezultiralo neočekivanim problemima vezanim uz zakrčenje prometnica, povećanje troškova i onečišćenja okoliša. Nužno je bilo pronaći odgovarajuću alternativu koja bi u potpunosti zadovoljila sve kriterije korisnika, te bila u mogućnosti pratiti sadašnje i buduće ekonomske ekspanzije, povećanje trgovine i rasta stanovništva. Kao moguće rješenje, Europska unija predložila je program priobalnog prometnog povezivanja, koji predstavlja svojevrsnu inovaciju, a čiji je cilj rasteretiti opterećene cestovne pravce, te kao alternativu ponuditi pomorske putove. Implementacija programa na svom razvojnom putu nailazi na brojne prepreke. Neophodno je te prepreke najprije identificirati, a zatim i ukloniti, kako bi se omogućio brži i bolji napredak. Stoga je u radu posebna pozornost posvećena identifikaciji prepreka koje koče implementaciju priobalnog prometnog povezivanja kako u razvijenim državama Europske unije, tako i u Republici Hrvatskoj. U radu je ujedno prezentiran dio programa "autoceste na moru" koji se odnosi na uvođenje novog intermodalnog logističkog lanca, zasnovanog na pomorskom prometu koji bi trebao unijeti strukturne promjene u organizaciji europskog transporta. Time će se omogućiti uspješno funkcioniranje priobalnog prometnog povezivanja i prevladavanje prepreka koje koče njegovu primjenu.

Ključne riječi: promet, priobalno prometno povezivanje, "autoceste na moru", intermodalni logistički lanac

SUMMARY

The increase in traffic, freight and passengers has led to an overload of road routes that were no longer able to absorb the growing amount of traffic, and this resulted in unexpected problems related to traffic jams, increased costs and environmental pollution. It was very important to find a suitable alternative that would fully meet all users' criteria and would be able to follow current and future economic expansions, increase in trade and population growth. As a possible solution, the European Union proposed a program of short sea shipping connections, which represents a certain type of innovation. Its aim is to unburden the overloaded road routes and offer sea routes as an alternative. On its path of development the implementation of the program meets many obstacles. Firstly, it is necessary to identify these obstacles, and then to remove them, in order to enable faster and better progress. Therefore, this paper gives a special attention to identifying obstacles that impede the implementation of short sea shipping connection in developed countries of the European Union, and also in the Republic of Croatia. The paper also presents a part of the 'Motorways of the Sea' program, which refers to the introduction of a new intermodal logistics chain, based on ship transport, which should bring structural changes into the organization of European transport. Thus allow for successful functioning of the short sea shipping connections and overcoming the obstacles which impede its implementation.

Key words: traffic, short sea shipping, "motorways of the sea", intermodal logistics chain

1. UVOD

Regija istočnog Mediterana, koja obuhvaća Grčku, Tursku, Siriju, Libanon, Izrael, Jordan i Egipat [15], smještena je na periferiji Europske unije i zahtijeva posebne mjere kako bi se povećala ekonomska kohezija i nadjačale administrativne prepreke uzrokovane velikim brojem država izvan Europske unije. U ovoj regiji nalaze se završne točke paneuropskih prometnih koridora pa će buduća proširenja Europske unije osigurati perspektivu za uspješan razvoj morskih "autocesta", a što će dodatno pospješiti razvoj prometnih sustava.

Priobalno prometno povezivanje je nastalo kao odgovor na prekomjeren rast cestovnog prometa što je dovelo do zagušenja prometnica i kašnjenja u isporuci tereta, a time i do povećanih troškova i pada kvalitete prometne usluge u Europi. Općenito se odnosi na kretanje tereta i putnika, vodenim putem, između točaka smještenih relativno blizu, i može uključivati domaći kao i međunarodni morski promet dužobalne linije te veze s obližnjim otocima, riječnim i jezerskim sustavima. Međuobalno prometno povezivanje jedan je od glavnih načina ostvarenja učinkovitog multimodalnog transportnog sustava, spremnog suočiti se s budućim zahtjevima Europske unije i pritom vodeći računa o ekonomskom razvoju, ali i o zaštiti i očuvanju okoliša.

Učinkovit prometni sustav nužan je za održivost Europske unije. Uzimajući u obzir daljnji rast prometa i buduće širenje granica Europske unije, uloga prometnog sustava postat će još važnijom. Glavni cilj napora Europske komisije je osigurati okvir za razvoj i integraciju različitih načina transporta u transportni lanac. Budući da svaki od pojedinog oblika prometa ima svoje prednosti (kapacitet, sigurnost, prilagodljivost, mala potrošnja energije, mala onečišćenja okoliša itd.), intermodalni transport, kombinirajući prednosti pojedinih oblika u transportnom lancu, omogućava bolju učinkovitost, ekonomičnost i održivost sustava. Potpora razvoju proizlazi i iz Bijele knjige europske transportne politike. Jedna od glavnih mjera Europske komisije u razvoju intermodalnog transporta upravo je donošenje Sporazuma o intermodalitetu [3], 28. ožujka 1997. godine.

Cilj ovoga Sporazuma je potaknuti suradnju različitih oblika transporta i omogućiti nadmetanje transportnih operatera.

1. INTRODUCTION

Eastern Mediterranean region, which includes Greece, Turkey, Syria, Lebanon, Israel, Jordan and Egypt [15], is situated on the periphery of the European Union and requires special measures in order to increase economic cohesion and prevail over administrative obstacles caused by a large number of countries outside the European Union. The end points of the Pan-European transport corridors are situated in this region, so the future widening of the European Union will ensure a perspective for a successful development of sea 'motorways', which will further enhance the development of transportation systems.

Short sea shipping connections have been created as a response to an excessive increase in road traffic, which has led to road congestions and delays in freight delivery, and thus to increased costs and lower quality of transport services in Europe. In general, it refers to the movement of freight and passengers, by water routes, between points located relatively close. This may include domestic and international ship transport along the coastline, as well as the connections with nearby islands, river and lake systems. Intercoastal traffic connection is one of the main ways to achieve an efficient multimodal transport system, which is ready to face with future demands of the European Union, thus taking into account the economic development, but also the protection and preservation of the environment.

An effective transport system is essential for the sustainability of the European Union. Taking into account the future traffic growth and future expansion of the European Union borders, the role of transport system will become even more important. The main goal of the European Commission's efforts is to provide a framework for development and integration of different transport modes into the transport chain. Since each of the modes of transportation has its advantages (capacity, safety, adaptability, low energy consumption, little environmental pollution, etc.), intermodal transport, by combining the advantages of each mode in the transport chain, enables better efficiency, cost-effectiveness and sustainability of the system. The intermodal transport development support also comes from the White Paper of the European transport policy. One of the main measures of the European Commission in the development of intermodal transport is exactly the adoption of the Intermodality Agreement [3], 28 March 1997.

Stvaranje kvalitetne komunikacije (prometne, informatičke, logističke) između europskih država je osnovni preduvjet za proces europske integracije. Republika Hrvatska da bi valorizirala svoj povoljan geografski položaj mora djelovati u pravcu kvalitetnog prometnog povezivanja s Europom. Upravo zbog toga je od velikog značenja uključenost hrvatske prometne mreže u projekte europskog prometnog sustava i sustava europskih koridora, a pri čemu je sustav međuobalnog prometnog povezivanja jedan od temeljnih prometnih sustava na kojem suvremena Europa gradi svoju budućnost.

U radu se primjenom znanstveno utemeljenih spoznaja o funkcioniranju sustava priobalnog prometnog povezivanja izlažu i elaboriraju problemi koji kočuju njegovu implementaciju. Izoliranjem i otklanjanjem tih problema, odnosno uskih grla, osigurava se rast i razvoj sustava priobalnog prometnog povezivanja te općenito razvoj prometa, pomorstva i gospodarstva.

Sukladno problematici istraživanja postavljena je znanstvena hipoteza:

Eksplisitna i implicitna znanja i rezultati istraživanja o međuodnosu priobalnog prometnog povezivanja u Europi i prometnog sustava Republike Hrvatske stvaraju znanstveni okvir za određivanje utjecaja priobalnog prometnog povezivanja u Europi na održivi rast i razvoj prometnog sustava Republike Hrvatske.

2. VAŽNOST IMPLEMENTACIJE I RAZVOJA PRIOBALNOG PROMETNOG POVEZIVANJA U EUROPI

Porast prometa, naročito izražen u prošlom desetljeću, stavio je pred Europu neočekivane probleme zakrčenja i onečišćenja okoliša. Nužno je bilo pronaći novu održivu ravnotežu između količine prometa i razvoja društva rastuće Europske unije.

Ideja priobalnog prometnog povezivanja nije nova, ali tek je krajem prošlog stoljeća, kada su postale vidljive posljedice nekontroliranog industrijskog razvoja, prepoznata kao budućnost europskog transportnog sustava. Cilj priobalnog prometnog povezivanja je rasteretiti opterećene cestovne pravce i kao alternativu ponuditi pomorski promet. U tom procesu luke postaju strateške točke u kojima je nužno izbje-

The aim of this agreement is to prompt the cooperation between different modes of transport and to enable competition between transport operators.

Creation of good communication (transport communication, information technology communication, logistic communication) between the European countries is the basic prerequisite for European integration. The Republic of Croatia in order to valorize its advantageous geographical position must act in the direction of high-quality transport connections with Europe. This is precisely why the involvement of the Croatian transport network into the projects of the European transport system and the system of European corridors is of great importance, and the intercoastal transport system connection is one of the main transport systems on which modern Europe is building its future.

In this paper by applying of scientifically based knowledge about the functioning of short sea shipping expose and elaborate problems that hinder its implementation. Isolating and remedying these problems, or bottlenecks, provides the growth and development of short sea shipping and the general development of transport, shipping and industry.

The scientific hypothesis was set in accordance with the issue of research: **Explicit and implicit knowledge and research results about the correlation of short sea shipping in Europe and the traffic system of Croatia create a scientific framework to determining the impact of short sea shipping in Europe to sustainable increase and development of Croatian traffic system.**

2. THE IMPORTANCE OF IMPLEMENTATION AND DEVELOPMENT OF SHORT SEA SHIPPING CONNECTIONS IN EUROPE

Increase in traffic, especially emphasized in the past decade, has placed in front of Europe some unexpected problems of congestion and environmental pollution. It was of essential importance to find new sustainable balance between the amount of traffic and the development of a growing European Union society.

The idea of short sea shipping connection is not new, but it was only at the end of the last century, when the consequences of uncontrolled industrial development became apparent, that it was

ći zakrčenja te smanjiti troškove kako bi se nadoknadile manjkavosti alternativnih putova (prilazni putovi, protočnost).

Koncept priobalnog prometnog povezivanja koristi se uslugama različitih oblika transporta. U najvećem broju slučajeva radi se o kombinaciji brodova priobalnog prometa i cestovnog prometa, odnosno kamiona. Česte su i kombinacije brodova sa željeznicom i brodovima vodenih plovni putova na kopnu. Konkurenciju između raznih načina prijevoza treba zamijeniti komplementarnost koja je nužna u ostvarenju pune usluge intermodalnog transporta te koordinirana suradnja na svim razinama. Na taj bi se način roba dopremala najučinkovitijom kombinacijom transportnih oblika.

Priobalno prometno povezivanje ne ograničava se isključivo na povezivanje luka već se širi na okvire intermodalnog transporta, kao dio logističkog lanca.

U Republici Hrvatskoj intermodalni promet još je u fazi razvoja, a udio intermodalnog tereta je u stalnom rastu. Cilj prometne politike Republike Hrvatske je [3]:

1. povećanje intermodalnog prometa
2. omogućavanje funkcioniranja tržišnih mehanizama
3. stalan i uravnotežen razvoj svih oblika transporta.

Hrvatska se svojim prometnim strategijama i projektima priključuje nastojanjima Europske unije u osiguravanju budućnosti prometa. Prvi važan korak u razvoju međuobalnog prometnog povezivanja u Hrvatskoj bilo je osnivanje Udruge za promicanje međuobalnog prometnog povezivanja, za čiji je rad iz državnog proračuna osigurano 250.000 kuna [12] u 2006. godini. Time Hrvatska ističe svoju kandidaturu za projekte financirane programom Marco Polo. Prebacivanjem tereta s ceste na more podupire se strateško određenje o rasterećenju cestovnog prometa u državama EU-a, veće korištenja pomorskih linija te svih ostalih oblika prometa za prijevoz roba i putnika, postiže se i bolja protočnost prometa, jača prometna povezanost unutar EU-a te se poboljšava zaštita okoliša zbog smanjenja ispuštanja štetnih plinova.

Priobalno prometno povezivanje čini više od 60% ukupnog pomorskog teretnog prometa Europske unije [13]. Ujedinjeno Kraljevstvo i

recognized as the future of European transport systems. The goal of short sea shipping connections is unburdening the overloaded road routes and offering ship transport as an alternative. In this process, the ports become strategic points where it is necessary to avoid congestion and reduce costs in order to compensate for the shortcomings of alternative roads (access roads, flow rate).

The concept of short sea shipping connection uses the services of various modes of transportation. In most cases, it is a combination of short sea shipping and road traffic, i.e. trucks. Very often, there is also a combination of ships with rail traffic and inland waterways vessels traffic. The competition between different modes of transportation should be replaced with complementarity, which is required for achieving a full service of intermodal transport, as well as a coordinated cooperation at all levels. In this way, the goods would be delivered in the most efficient combination of transportation modes.

Short sea shipping connections are not limited solely to connecting the ports, but rather expand to the framework of intermodal transport, as a part of logistics chain.

In the Republic of Croatia, intermodal transport is still in developmental phase, and the share of intermodal freight is constantly growing. The goal of the Republic of Croatia's transport policy is [3]:

1. increase in intermodal traffic,
2. enabling the market mechanisms functioning,
3. steady and balanced development of all modes of transportation.

With its transport strategies and projects, Croatia is joining the European Union's efforts in securing the future of transport. The first important step in developing intercoastal transport connections in Croatia was the founding of the Short-sea Shipping Promoting Centre, and for its work the state budget provided 250,000 kuna [12] in 2006. Thus, Croatia expresses its candidacy for the projects financed by the Marco Polo Programme. Moving freight from roads to sea supports the strategic determination of unburdening the road traffic in EU countries, vaster use of sea lines and all other forms of goods and passengers transport. Better flow of traffic is also achieved, transportation connections within the EU are stronger, and environmental protection is improved due to harmful gases emission reduction.

Italija države su s najvećim udjelom prevezene robe priobalnim prometnim povezivanjem, dok je tekući teret najčešće zastupljen [6].

Prema grafikonu 1 vidljivo je da je u većini država Unije priobalno prometno povezivanje dominantan oblik pomorskog prijevoza. Nadmoć priobalnog prometa posebno je naglašena u Finskoj, Švedskoj i Malti s više od 90% priobalnog prijevoza robe.

S obzirom na strukturu tereta, kako je vidljivo iz grafikona 2, tekući teret ima s 48,8% i 971 milijuna tona dominantnu ulogu u priobalnom prometnom povezivanju, slijedi ga suhi i rasuti teret s 20%, odnosno 398 milijuna tona, te Ro-Ro (12,9%; 256 milijuna tona) i kontejnerski (10,6%; 210 milijuna tona) promet.

Unatoč značajnim naporima, intermodalni transport tereta u Europi ne može konkurirati sve većim potrebama ekonomije svjetskog tržišta. Promjene oblika transporta još uvijek su uzrok velikih troškova i ne omogućuju dovoljan raspon usluga u logističkom lancu. Stoga će bolja iskoristivost infrastrukture svih oblika transporta postati imperativ u budućim godinama, kada se očekuje daljnje povećanja transporta tereta.

Short sea shipping connections make more than 60% of total ship freight traffic of the European Union [13]. The United Kingdom and Italy are countries with the largest share of goods transported by short sea shipping connections, and the most frequent is liquid cargo [6].

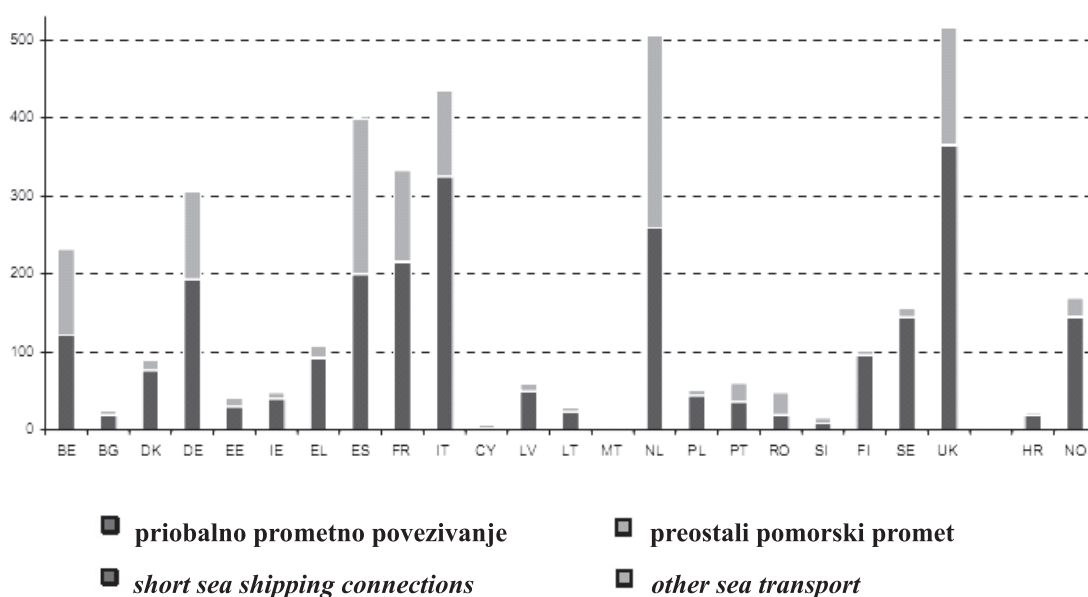
According to Diagram 1, it is evident that in most EU countries, short sea shipping connections is a dominant mode of ship transport. The superiority of short sea shipping is particularly emphasized in Finland, Sweden and Malta, with more than 90% of short sea shipping of goods.

Given the structure of freight, as shown in Diagram 2, liquid cargo has a dominant role in short sea shipping with 48.8% and 971 million tons, followed by dry and bulk cargo with 20%, or 398 million tons, as well as ro-ro (12.9%; 256 million tons) and container traffic (10.6%; 210 million tons).

Despite significant efforts, intermodal freight transport in Europe cannot compete with the growing needs of the world market economy. Changes in modes of transportation are still the cause of high costs and they do not enable a sufficient range of services to the logistics chain. Therefore, a better utilization of infrastructure of

Grafikon 1. Udio priobalnog prometnog povezivanja u ukupnom pomorskom prometu država članica EU, uključujući Norvešku i Hrvatsku

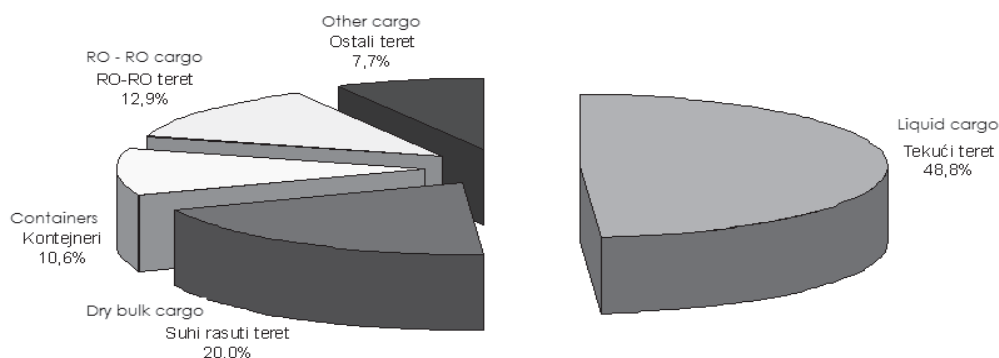
Diagram 1 The share of short sea shipping connections in the overall sea transport of EU countries, including Norway and Croatia



Izvor: Statistics in focus, Transport 58/2009.

Source: Statistics in focus, Transport 58/2009

Grafikon 2. Razdioba priobalnog prometno povezivanje s obzirom na vrstu prevezenog tereta
Diagram 2 Distribution of short sea shipping connections with respect to the type of transported cargo



Izvor: Statistics in focus, Transport 58/2009.

Source: Statistics in focus, Transport 58/2009

3. PROBLEMI U IMPLEMENTACIJI PRIOBALNOG PROMETNOG POVEZIVANJA U REPUBLICI HRVATSKOJ

Najvažniji rezultati o problemima i mogućnostima priobalnog povezivanja u Republici Hrvatskoj predstavljeni su kroz šest tematskih jedinica: 1) o priobalnom prometnom povezivanju općenito, 2) percepcija pomorskog prijevoza u Europi, 3) poteškoće u dizajniranju intermodalnog lanca u Europi, 4) poteškoće odnosa aktivnih sudionika u lučkim sustavima, 5) standardizacija dokumentacijske procedure u priobalnom prometnom povezivanju, 6) unificiranje pravila carinskog prava Europske unije.

3.1. O priobalnom prometnom povezivanju općenito

Priobalno prometno povezivanje usmjereno je na razvoj prometnog sustava koji bi bio sposoban postići ravnotežu između pojedinih oblika prometa, obnoviti željeznički promet, promovirati pomorski promet, promet unutarnjim vodenim putovima te kontrolirati razvoj zračnog prometa. Neravnomjeran razvoj unutarnjeg tržišta pojedinih država te nedostatak fiskalne i socijalne harmonizacije kao posljedica ima neravnomjeran razvoj pojedinih oblika prometa. To je posljedica činjenice da su pojedini oblici prometa, npr. cestovnog, znatno prilagodljiviji potrebama suvremenog gospodarstva. Daljnje posljedice su zagušenje glavnih prometnih putova te "pritisak" na okoliš. Da bi

all modes of transportation will become an imperative in future years, when further increase in freight transport is expected.

3. PROBLEMS IN THE IMPLEMENTATION OF SHORT SEA SHIPPING CONNECTIONS IN CROATIA

The most important results about the problems and possibilities of short sea shipping in Croatia are presented through six thematic units: 1) general about short sea shipping, 2) perception of maritime transport in Europe, 3) the difficulties of creating intermodal chain in Europe, 4) difficulties in relation of active participants in port systems, 5) standardization of documentation procedures in the short sea shipping, 6) unification of the customs law regulations in European Union.

3.1. General about short sea shipping

Short sea shipping connections are focused on the development of transport system which would be able to achieve a balance between different modes of transportation, to restore rail traffic, promote sea transport and inland waterway transport, and control the development of air transport. Uneven development of the internal market in some countries and a lack of fiscal and social harmonization result in an uneven development of individual modes of transportation. This is a consequence of the fact that certain modes of transportation,

se ti problemi riješili potrebno je donijeti odluke na nacionalnoj i regionalnoj razini, pri čemu odluke Europske unije mogu poslužiti samo kao smjernice, no ne i kao obvezujuće odredbe. Stoga je nužno propisati pravnu regulativu neizravno vezanu uz promet, kao što su: socijalna politika, obrazovna politika, zakoni o konkurentnosti tržišta i dr.

Brojni stručnjaci se slažu da program priobalnog prometnog povezivanja predstavlja budućnost europskog prometnog sustava, no na svom razvojnom putu program nailazi na brojne prepreke [5], od kojih su najznačajnije:

1. mnogi sudionici i dalje smatraju da je riječ o zastarjelom načinu prijevoza
2. potpuna integracija međuobalnog prometnog povezivanja u multimodalni prometni sustav tek se počinje ostvarivati
3. kompleksna dokumentacija i administrativne procedure tek moraju biti detaljno ispitane
4. učinkovitost luka, lučkih službi i veze luka sa zaleđem potrebno je unaprijediti.

Europska komisija odlučila je 1999. godine sastaviti listu stvarnih prepreka koje usporavaju razvoj priobalnog prometnog povezivanja, a zatim pronaći potencijalna rješenja. U suradnji sa tzv. *fokusnim točkama*, kao predstavnicima nacionalnih pomorskih organizacija, predstavnicima industrije i svim zainteresiranim stranama sastavljena je lista sa 161 identificiranom preprekom koju valja riješiti na različitim razinama (ekonomskoj, lokalnoj, nacionalnoj, regionalnoj itd.). Od početka ove inicijative Europska komisija uspjela je riješiti veliki broj problema, no još uvijek je potrebno naći rješenje preostalim preprekama.

Razvoj priobalnog prometnog povezivanja primarno je zadaća industrije. Međutim, vlasti imaju jasnu zadaću stvaranja odgovarajućih okvira i očuvanja cijelog sustava. Stoga su 2003. godine održana dva sastanka predstavnika tzv. *fokusnih točaka* posvećena isključivo preprekama priobalnog prometnog povezivanja. Rezultat tih sastanaka bila je kategorizacija svih identificiranih prepreka u sljedećih nekoliko skupina [5]:

1. predodžba da je pomorski prijevoz spor i zastario
2. prepreke u intermodalnim lancima (sustav "od vrata do vrata")

such as road traffic, are significantly more adaptable to the needs of modern economy. Further consequences are congestion of the main traffic routes and the pressure on the environment. In order to solve these problems, decisions at national and regional levels are required, where the decisions of the European Union can serve only as guidelines, and not as binding regulations. Referring to that it is necessary to prescribe the legal regulation indirectly related to transport, such as: social policy, education policy, the laws on competition on the market, etc.

Many experts agree that a program of short sea shipping connections is the future of European transport system, but on its path of development the program faces numerous obstacles [5], among which the most important are:

1. many participants continue to think that this is an outdated mode of transportation,
2. full integration of intercostals transport connection in a multimodal transport system has yet to be achieved,
3. complex documentation and administrative procedures have yet to be thoroughly investigated.
4. efficiency of ports, port services and ports' connections with hinterland need to be improved.

In 1999, the European Commission decided to compile a list of actual obstacles which hinder the development of short sea shipping connections, and then to find potential solutions. In cooperation with so-called Focal points, as representatives of national maritime organizations, industry representatives and all interested parties, they made a list of 161 identified obstacles that must be solved at different levels (economic, local, national, regional, etc.). Since the foundation of this initiative, the European Commission was able to solve many problems, but there is still need to find a solution to the remaining obstacles.

The development of short sea shipping connections is a primary industrial assignment. However, the authorities have a clear mission of creating appropriate frameworks and conservation of the entire system. Therefore, in 2003, two meetings of the representatives of so-called Focal points took place, dedicated solely to the obstacles of short sea shipping connections. The result of these meetings was the categorization of the identified obstacles in following few groups [5]:

3. prepreke u lukama i lučkim službama
4. složena dokumentacijska procedura
5. neusklađenost carinskih propisa.

3.2. Percepcija pomorskog prijevoza u Europi

Općenito, među korisnicima prometnih usluga o programu priobalnog prometnog povezivanja razvila se prilično pozitivna slika. Međutim, oni i dalje ne doživljavaju priobalno prometno povezivanje kao sastavni i ravnopravni dio lanca intermodalnog transporta. Upravo takvo shvaćanje priobalnog prometnog povezivanja, kao zastarjelog, sporog i složenog načina transporta, koji se uglavnom koristi za prijevoz velikih količina rasutog tereta, predstavlja jednu od najvećih prepreka koje stoje na putu njegova razvoja. Tako prema rezultatima istraživanja Europske komisije, većina prijevoznika smatra da cestovni promet zadovoljava zahtjevima vremena prijevoza, pouzdanosti, fleksibilnosti, učestalosti i sigurnosti na visokoj razini. Istovremeno, željeznica zadovoljava sve zahtjeve na srednjoj razini, osim pouzdanosti koja je na niskoj razini. Priobalno prometno povezivanje udovoljilo je jedino zahtjevima sigurnosti na visokoj razini, dok se vrijeme prijevoza, fleksibilnost i učestalost doživljavaju na niskoj razini, a pouzdanost na srednjoj razini. Ovakva negativna percepcija, iako potpuno neopravdana i prisutna samo kod određenog broja prijevoznika, izrazito je štetna za razvoj priobalnog prometnog povezivanja. Također, nedostatak svijesti uzrokuje situacije u kojima neki prijevoznici i otpremnici uopće ne razmišljaju o priobalnom prometnom povezivanju kao mogućem načinu transporta.

Iako brojna istraživanja nisu dovela do konačnih zaključaka, jasno je da sama cijena prijevoza često nije dovoljna da bi se ohrabrilo korisnike na promjenu načina transporta.

S obzirom na navedeno, zaključak je da priobalno prometno povezivanje mora postati održiva alternativa. Zadaća je industrije da dokaže kako stvarnost ne odgovara staroj slici. Priobalno prometno povezivanje mora ispuniti očekivanja korisnika o brzini (uključujući i brzinu na moru), pouzdanosti, fleksibilnosti, učestalosti, sigurnosti tereta i atraktivnosti cijene te time stvoriti novu, modernu sliku, nudeći usluge prijevoza "od vrata do vrata". Takvu bi sliku trebalo prenijeti svim korisnicima prometnih usluga

1. perception that sea transport is slow and outdated,
2. obstacles in intermodal chains ('Door to Door' system),
3. obstacles in ports and port services,
4. complex documentation procedures,
5. lack of harmonization of customs regulations

3.2. The perception of maritime transport in Europe

In general, the users of transport services have developed a rather positive image of the short sea shipping connection program. However, they still do not think of short sea shipping connections as an integral and equal part of intermodal transport chain. It is precisely this understanding of short sea shipping connections as an outdated, slow and complex mode of transportation mainly used to transport large quantities of bulk cargo which is one of the biggest obstacles standing in the way of its development. Thus, according to the researches of the European Commission, most carriers think that road transport meets the requirements of transport duration, reliability, flexibility, frequency and safety at a high level. At the same time, railway meets all the requirements at a medium level, except for the reliability, which is at a low level. Short sea shipping connections only meets requirement of safety at a high level, while the transport duration, flexibility and frequency are considered to be at a low level, and the reliability at a medium level. Such negative perception, though completely unjustified and present only in a certain number of carriers, is extremely harmful to the development of short sea shipping connections. Also, a lack of awareness causes situations in which some carriers and shippers do not even think about short sea shipping connections as a possible mode of transportation.

Although numerous studies have not led to definite conclusions, it is clear that the price of transport is often not sufficient enough for encouraging users to change modes of transportation.

Given the above, the conclusion is that short sea shipping connections must become a sustainable alternative. The task of the industry is to prove that the reality does not correspond to the old image. Short sea shipping connections must meet users' expectations about speed (including speed at sea), reliability, flexibility, frequency, cargo safety and price attractiveness and thereby create a

kako bi o načinu transporta mogli odlučiti na temelju činjenica, a ne na temelju slika prošlosti. Da bi se to zaista dogodilo, programu priobalno-prometnog povezivanja treba posvetiti više pažnje. Treba osigurati širenje informacija o potencijalu ovoga programa. Moguće rješenje bilo bi stvaranje online informacijske službe koja bi omogućila nesmetan protok najnovijih podataka do bilo kojeg potencijalnog korisnika diljem Europe. Važnu ulogu u tome imaju promocijski centri, tzv. *fokusne točke* i *one-stop shops*.

3.3. Poteškoće u dizajniranju intermodalnih lanca u Europi

Sustavi odgovornosti na području nacionalnog multimodalnog transporta su iznimno složeni i prilično specijalizirani. Tako je Varšavskom konvencijom iz 1929. godine uređen zračni promet, Haška (1924) i Hamburška (1978) pravila reguliraju pomorski promet, COTIF/CIM (1980) pokriva željeznički, a CMR konvencija (1956) cestovni promet (s mnogobrojnim protokolima).

Rješavanje problema multimodalnog transporta započelo je još 1980. godine kada je donesena Konvencija Ujedinjenih naroda o međunarodnom multimodalnom transportu roba [14]. Međutim, ta Konvencija još nije stupila na snagu. Njome je uređena odgovornost u međunarodnom multimodalnom transportu, a zasniva se na Hamburškim pravilima.

U prošlost, cilj je bio omogućiti uslugu bez oštećenja tereta. Danas to više nije cilj već obaveza. Ako priobalno-prometno povezivanje nije u stanju odgovoriti na takva visoka očekivanja neće se moći nositi s konkurentnim načinima transporta.

Kao posljedica, javljaju se problemi s osiguranjem, odgovornošću te nadoknadom troškova u slučaju oštećenja robe. Sigurnost tereta potrebno je dovesti na višu razinu, a kako bi se izbjegli nesporazumi, podatke o štetama treba učiniti javnima.

3.4. Poteškoće odnosa aktivnih sudionika u lučkim sustavima

Priobalno-prometno povezivanje treba učinkovite luke, razumnih vremena obrta, transparentnih procedura i cijena usluga, bilo da se radi o morskim, unutarnjim ili riječnim lukama. Samo uz pomoć luka uklopljenih u intermodal-

new, modern image, offering services of transportation 'from door to door'. Such picture should be transmitted to all users of transport services so that they could decide on the mode of transportation based on facts, and not based on the pictures from the past. To make this really happen, the program of short sea shipping connections should be given more attention. Distribution of information about the potential of this program should be ensured. A possible solution would be to create an online information service which would allow for an unobstructed flow of recent data to any potential user throughout Europe. An important role in this is the one of the Promotion Centers, so-called Focal points and *one-stop shops*.

3.3. The difficulties of creating intermodal chain in Europe

The systems of accountability in the field of national multimodal transport are extremely complex and rather specialized. So, the Warsaw Convention of 1929 regulates air traffic, the Hague (1924) and Hamburg (1978) Regulations govern maritime transport, COTIF/CIM (1980) cover railway transport, and the CMR Convention (1956) road traffic (with numerous protocols).

Solving the problem of multimodal transport began in 1980, when the United Nations Convention on International Multimodal Transport of Goods was brought [14]. However, this convention has not yet come into force. It decides on the responsibility in international multimodal transport and is based on the Hamburg Regulations.

In the past, the goal was to provide service without any cargo damage. Today it is no longer a goal, but an obligation. If short sea shipping connection is not able to respond to such high expectations, it will not be able to cope with competitive modes of transportation.

As a result, there are problems with insurance, liability and cost compensation in the event of damage to the goods. Cargo safety should be brought to a higher level, and in order to avoid misunderstandings, the data on damage should be made public.

3.4. Difficulties in relation of active participants in port systems

Short sea shipping connections need effective ports, ports of reasonable turnarounds, transparent procedures and service prices whether they are

ni lanac, program priobalnog prometnog povezivanja može ostvariti svoje potencijale.

Problemi u radu luka najčešće su uzrokovani nedostatkom odgovarajuće infrastrukture, manjkom kopnenih veza te neučinkovitošću pri manipulacijama teretom. Lučki troškovi mogu nekada biti nesrazmjerno visoki i nisu uvijek transparentni. Radi bolje integracija luka u intermodalni transportni lanac, te slobodnog i poštenog nadmetanja između luka uz jednake uvjete Europska komisija donijela je 1997. godine Zelenu knjigu o morskim lukama i pomorskoj infrastrukturi. Luke bi trebale omogućiti jednaku razinu usluge svim korisnicima, bez diskriminacije. Unutar svojih ekonomskih okvira, luke bi trebale odlučiti kako na najbolji način zadovoljiti potrebe priobalnog prometnog povezivanja. Da bi unaprijedile svoju uslugu, luke bi međusobno trebale izmjenjivati informacije i iskustva. Lukama i intermodalnim terminalima dodijelio bi se poseban status točaka poveznica različitih načina transporta, čime bi se dodatno unaprijedio njihov razvoj.

3.5. Standardizacija dokumentacijske procedure u priobalnom prometnom povezivanju

Složena dokumentacija jedan je od glavnih utega bržeg razvoja priobalnog prometnog povezivanja. Provedena su brojna istraživanja i usporedbe potrebne dokumentacije u cestovnom prometu i priobalnom prometnom povezivanju. Nedvojbeno je vidljivo da je broj potrebnih dokumenata u priobalnom prometnom povezivanju veći. Međutim, takvi rezultati nisu iznenađenje budući da se brodovima, u pravilu, prevoze višestruke pošiljke koje zahtijevaju i posebnu dokumentaciju. Radi se o "naslijede- nom teretu" koji uzrokuje dodatne troškove i zakašnjenja.

Iako je priobalno prometno povezivanje administrativno složen način prijevoza, dokumentacija i administrativne procedure sastavni su dio rutinskog posla. Međutim, čak i u državama članicama Europske unije potrebna dokumentacija može značajno varirati. Rješenje nudi standardizacija dokumentacije i procedura. Upravo je to cilj Direktive o standardizaciji određenih izvještaja za brodove koji dolaze i/ili isplovljavaju iz luka država članica [9]. Riječ je o inicijativi za standardizacijom određenih formalnosti pri dolasku, odnosno odlasku brodova

sea, inland or river ports. Only with the help of ports embedded in intermodal transport chain, can short sea shipping program achieve its potentials.

Problems in ports' operations are usually caused by a lack of suitable infrastructure, lack of land connections and inefficiency in cargo handling. Port costs can sometimes be disproportionately high and are not always transparent. In some cases, payment is required even for services that were not used (e.g. pilotage or towing). For better integration of ports into intermodal transport chain, and for free and fair competition between ports under the same conditions, in 1997 the European Commission adopted the Green Paper on Seaports and Maritime Infrastructure. Ports should provide the same level of service for all customers without discrimination. Within their economic frameworks, ports should decide on the best way to meet the needs of short sea shipping connections. In order to improve their service, ports should mutually exchange information and experiences. Ports and intermodal terminals would be given a special status of linking points of different modes of transportation, which would further enhance their development.

3.5. Standardization of documentation procedures in the short sea shipping

Complex documentation is one of the main weights of short sea shipping connections' faster development. Numerous investigations were conducted to compare the necessary documentation in road transport and short sea shipping connections. Undoubtedly, it is evident that the number of documents in short sea shipping connections is bigger. However, these results are not surprising, given that ships, as a rule, carry multiple shipments which also require special documentation. This is 'inherited cargo' which causes additional costs and delays.

Although short sea shipping connection is an administratively complex mode of transportation, documentation and administrative procedures are an integral part of routine work. However, even within the European Union countries, the required documentation may vary considerably. The solution offers a standardization of documentation and procedures. This is precisely the goal of the Directive on Standardization of certain reports for ships arriving to and/or departing from the member states' ports [9]. It is an initiative for standardization of certain formalities on arrival and departure

u luke država članica Europske unije. Iako je ona na snazi od 2003. godine problemi i dalje postoje. U praksi, to znači da su do rujna 2003. godine brojni nacionalni obrasci pri dolasku, odnosno odlasku brodova trebali biti zamijenjeni univerzalnim.

3.6. Unificiranje pravila carinskog prava Europske unije

Europska komisija predstavila je u ožujku 2002. godine Vodič o carinskim procedurama [8] koji se svakodnevno primjenjuje u procesu priobalnog prometnog povezivanja. Cilj je na jednom mjestu ponuditi informacije o obvezama i mogućnostima koje zahtijevaju carinska pravila Europske unije. Vodič, također, treba potencijalnim korisnicima priobalnog prometnog povezivanja, dokazati da sadašnje carinske procedure nisu tako složene i da ne predstavljaju stvarnu prepreku u korištenju usluga priobalnog prometnog povezivanja.

Europska komisija kontaktirala je sve uključene subjekte pri čemu je zaključila da stvarnih problema povezanih s carinskim propisima Europske unije nema tako mnogo kao što se ranije mislilo. Najviše komentara izazvala je tzv. "Autorizirana redovita brodarska služba" [1], kojom se roba prevozi između dvije države članice s minimalnim carinskim formalnostima.

Na temelju konzultacija i budućih razvoja na polju carine, Europska komisija periodično nadopunjuje Vodič za carinske procedure.

U cilju ispunjavanja obveza Republike Hrvatske vezanih za članstvo u Europskoj uniji, a time i Carinske uprave u Carinsku uniju, Carinska uprava intenzivno radi na pripremama za implementaciju novih sustava koji će podržati provođenje carinskih postupaka bez papira. U skladu s tim neophodno je razviti i komunikaciju u elektroničkom obliku između sudionika u carinskom postupku.

Carinsko zakonodavstvo Republike Hrvatske mora biti usklađeno s carinskim zakonodavstvom Europske unije, stoga se kontinuirano prate izmjene carinskih propisa Europske unije s ciljem pojednostavnjenja postupaka, uvođenjem modernog sustava poslovanja, elektroničke povezanosti, orijentiranosti prema potrebama gospodarstva i suradnji s ekonomskim operaterima te jačanjem međusobne komunikacije [10].

of ships in ports of member states. Although is in force since 2003. problems still exist. In practice, this means that by September 2003 the number of national patterns on arrival and departure of ships should be replaced by universal ones.

3.6. Unification of the customs law regulations in European Union

In March 2002, the European Commission presented A Guide to Customs Procedures [8] which are applied daily in the process of short sea shipping connections. The goal is to offer, in one place, the information about the obligations and opportunities required by customs regulations of the European Union. The guide should also prove to potential users of short sea shipping connections that the current customs procedures are not so complex and do not represent a real obstacle in using the services of short sea shipping connections.

The European Commission has contacted all the participants and thus came to conclusion that the real problems associated with customs regulations of the European Union are not present as much as previously thought. Most comments were caused by so-called 'Authorized regular shipping service' [1] by which goods are transported between two member states with minimal customs formalities.

Based on consultations and future developments in the field of customs, the European Commission periodically supplements A Guide to Customs Procedures.

In order to accomplish its obligations related to European Union membership, Customs Administration and Customs Union altogether, toll authority works intensively on preparations for implementation of new systems which will then support conducting customs procedures without paperwork. In accordance with that, it's imperative to develop electronic communications between the participants in customs procedures.

Republic of Croatians customs legislation has to be coherent with the customs legislation of European Unions which is why changes in European Unions regulations are monitored regularly with intention to make the procedures simpler, to introduce modern business systems, electronic connection, focus on economy necessities and cooperation with economy operators and consolidation of communication between them [10].

Konkurentnosti hrvatskog gospodarstva pridonosi primjena modernih i pojednostavnjenih sustava carinskog poslovanja. Novi računalni provozni sustav (NCTS – New Computerised Transit System) je informatički sustav koji omogućuje provedbu provoznih postupaka u elektroničkom obliku, bez papira, temeljem razmjene elektroničkih poruka sudionika u postupku. Primjenjuje se u 31 zemlji (27 zemalja EU i 4 zemlje EFTA-e). U procesu pristupanja Republike Hrvatske Konvenciji o zajedničkom provoznom postupku NCTS 4.0. početak će se nacionalno primjenjivati od 1. kolovoza 2011. godine [10].

4. SMJERNICE I AKTIVNOSTI ZA SVLADAVANJE PROBLEMA U PRIOBALNOM PROMETNOM POVEZIVANJU U REPUBLICI HRVATSKOJ

S ciljem promocije intermodalnog transporta i priobalnog prometnog povezivanja, Europska komisija, u Bijeloj knjizi europske transportne politike [7], u rujnu 2001. godine, kao alternativu kopnenom prometu, predložila razvoj programa “autoceste na moru”. Pri tome se pomorski promet, zajedno s vodnim prometom na kopnu, smatra ključnom komponentom intermodalnosti u borbi protiv rastućih problema cestovnih i željezničkih zakrčenja te onečišćenja zraka. Razvoj morskih “autocesta” izražen je kao važna mjera prometne politike za potporu održivog gospodarskog rasta, društvenog razvoja i zaštite okoliša.

Konceptom “autoceste na moru” teži se uvođenju novog intermodalnog logističkog lanca, zasnovanog na pomorskom prometu, koji će unijeti strukturne promjene u organizaciji europskog transporta. Koncept se zasniva na priobalnim koridorima, s brzim i učinkovitim sustavom priobalnog prometnog povezivanja.

“Autoceste na moru” zamišljene su kao dio transeuropske mreže prometnica. Takva mreža trebala bi biti učinkovitija od isključivo cestovne mreže, okrenuta očuvanju okoliša i održivom razvoju. Da bi to bilo moguće morat će se bolje iskoristiti mogućnosti pomorskog prometa te potencijali željezničkog sustava i sustava vodnog prometa kopnom, kao sastavnih dijelova intermodalnog lanca.

Članovi Europske komisije odlučni su u namjeri rješavanja problema europskih cestovnih

Appliance of modern and simple customs systems contributes to competitive strength of Croatian economy. New computerised transit system (NCTS) is informatical system which allows implementation of transit procedures in electronic form, without paperwork, based on exchanging of electronic messages sent by participants in proceedings. It's implemented in 31 country (27 EU countries and 4 EFTA countries). In Croatians process of accession to Convention of mutual transit procedure NCTS 4.0. will start applying nationally on August 1st 2011. [10]

4. GUIDELINES AND ACTIVITIES FOR OVERCOMING PROBLEMS IN SHORT SEA SHIPPING CONNECTIONS IN CROATIA

Aiming at promoting intermodal transport and short sea shipping connections, in the White Paper of European Transport Policy [7], in September 2001, as an alternative to land transport, the European Commission proposed the development of ‘Motorways of the Sea’ program. In that way, sea traffic, together with inland water transport, is considered to be a key component of intermodality in the fight against the growing problems of road and rail congestion and air pollution. The development of sea motorways is expressed as an important transport policy measure for the support of sustainable economic growth, social development and environmental protection.

The concept of ‘Motorways of the Sea’ tries to introduce a new intermodal logistics chain, based on maritime transport, which will bring structural changes in the organization of European transport. The concept is based on coastal corridors, with a fast and efficient system of short sea shipping connections.

‘Motorways of the Sea’ have been planned as a part of the Trans-European traffic routes network. Such network should be more efficient than exclusively road network, since it is directed toward environmental protection and sustainable development. In order to make this possible, people will have to exploit better the potential of maritime transport and railway systems, as well as inland water transport, as the components of intermodal chain.

Members of the European Commission are determined in their intention to solve the problem of

prometnica. Svjesni mogućeg kolapsa europskih cestovnih i željezničkih prometnica kao i mogućnosti obalnog pomorskog prometa promijenili su pogled na pomorsko tržište i osmislili budućnost europske trgovine (Zemljovid 1).

U proljeće 2004. godine Europski parlament je izdao smjernice kojim se definira pravni okvir za stvaranje “autocesta na moru”. Utvrđena su tri glavna cilja projekta [4]:

1. preusmjerenje tokova tereta na more
2. povećanje prometne kohezije
3. smanjenje cestovnih zakrčenja preraspodjelom tereta.

Pritom su ustanovljena četiri koridora za ostvarivanje europskih interesa [11]:

- “Autoceste Baltičkog mora”, povezujući države Baltičkog mora s državama članicama Središnje i Zapadne Europe
- “Autoceste mora Zapadne Europe”, povezujući Portugal i Španjolsku sa Sjevernim i Irskim morem

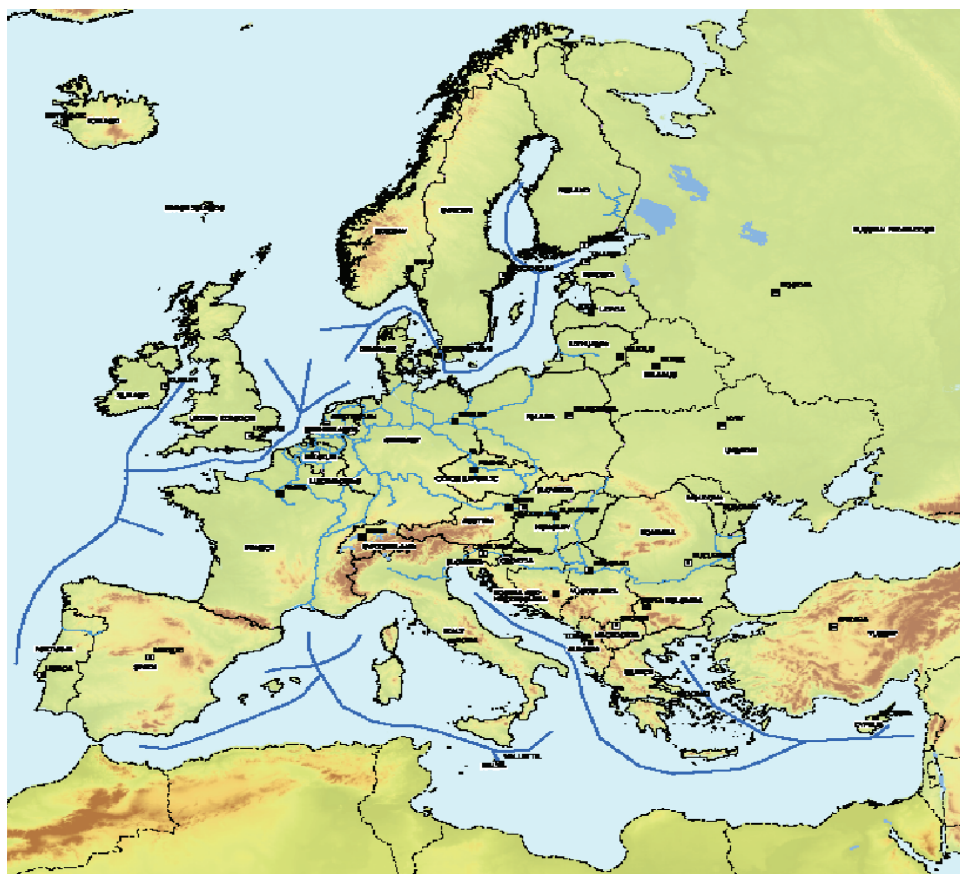
European traffic routes. Aware of possible collapse of European road and rail traffic routes, as well as the possibility of short sea shipping, they have changed the image of maritime market and come up with the future of European trade (Map 1).

In spring of 2004, the European Parliament issued guidelines on defining the legal framework for creating ‘motorways of the sea’. Three main objectives of the project were established [4]:

1. diverting the flow of cargo to the sea
2. increase in traffic cohesion
3. reduction of road congestion by redistributing the cargo

Thereby, four corridors for achieving European interests have been established [11]:

- ‘Motorways of the Baltic Sea’, linking the Baltic Sea member states and the Central and Western Europe member states
- ‘Motorways of the Sea of Western Europe’, linking Portugal and Spain with the North Sea and the Irish Sea



Zemljovid 1. “Autoceste na moru”
Map 1 ‘Motorways of the Sea’

Izvor: European Commission, Directorate General for Energy and Transport, Motorways of the Sea; (6. svibnja. 2010.)
Source: European Commission, Directorate General for Energy and Transport, Motorways of the Sea, (6.05.2010.)

- “Autoceste mora Jugoistočne Europe”, povezujući Jadransko more s Jonskim morem i istočnim Mediteranom, uključujući i Cipar
- “Autoceste mora Jugozapadne Europe”, povezujući Španjolsku, Francusku, Italiju i Maltu, spajajući ih s “autocestama mora Jugoistočne Europe” i Crnim morem.

S obzirom na navedeno zaključak je da bi “autoceste na moru” trebale postati sastavni dio logističkih lanaca te omogućiti učinkovitu, pouzdanu i redovitu uslugu koja će se moći nositi s cestovnim prometom, pri čemu luke uključene u projekt moraju osigurati učinkovite veze sa zaleđem, smanjenje administrativnih procedura i visok stupanj usluge, što je neophodno za uspjeh priobalnih prometnih operacija. Iako je priobalno prometno povezivanje samo instrument za ostvarenje koncepta “autocesta na moru” ono ima znatno širi okvir budući da, osim međunacionalnih poveznica između država članica Europske unije, također uključuje i nacionalne veze, veze kopna i otoka te veze s trećim državama.

Problem u razvoju međubalnog prometa u Hrvatskoj, uz već navedene probleme razvoja intermodalnog prometa, predstavlja i nedostatak tereta. Stoga je Hrvatska, u granicama svojih mogućnosti, razvoj međubalnog prometa usmjerila u pravcu razvoja feeder servisa i tzv. projekta “plavih autocesta”. Upravo je međubalno prometno povezivanje na linijama između talijanskih i hrvatskih luka od Ravenne do Bakra te od Ancone prema Zadru i Pločama, koje bi predstavljale “plave autoceste” istaknuto kao jedan od najvažnijih ciljeva Udruge za promicanje međubalnog prometnog povezivanja.

5. ZAKLJUČAK

Tržište, trgovina i promet srce su svakog gospodarskog sustava. Međutim, u Europi, oni postaju žrtve brojnih prometnih zakrčenja i onečišćenja. Europa se našla pred izazovom, kako unaprijediti prometnu politiku, a da se pritom ne ugrozi ekonomski razvoj i sloboda kretanja. Kako postojeći mobilni sustav učiniti uravnoteženijim, pametnijim i manje štetnim za okoliš. Međubalno prometno povezivanje već se dokazalo kao učinkovit, ekonomičan i siguran oblik transporta, naklonjen očuvanju okoliša, i osmišljen da bi se unaprijedila učinkovitost intermodalnog

- ‘Motorways of the Sea of South-East Europe’, linking the Adriatic with the Ionian Sea and eastern Mediterranean, including Cyprus
- ‘Motorways of the Sea of South-West Europe’, linking Spain, France, Italy and Malta, connecting them with the Motorways of the Sea of South-East Europe and the Black Sea

Given the above, the conclusion is that the ‘Motorways of the Sea’ should become an integral part of logistics chain and should enable efficient, reliable and regular service which will be able to deal with road traffic, whereby the ports included in the project must ensure effective links with hinterland, the reduction of administrative procedures and a high level of service, which is essential for the success of short sea shipping operations. Although short sea shipping connections are only an instrument for the accomplishment of the concept of ‘Motorways of the Sea’, they have significantly wider scope since, along with international links between the EU countries, they also includes national links, links between mainland and islands and links with third countries.

The problem in developing intercoastal traffic in Croatia, in addition to aforementioned problems of developing intermodal traffic, is also a lack of freight. Therefore, Croatia has, within its possibilities, directed the development of intercoastal traffic towards the development of feeder services and so-called ‘Blue Motorways’ project. It is the intercoastal traffic connection on routes between Italian and Croatian ports from Ravenna to Bakar and from Ancona to Zadar and Ploče, which would represent ‘Blue Motorways’, which is identified as one of the main objectives of the Shortsea Shipping Promoting Centre.

5. CONCLUSION

Market, trade and transport are the essence of any economic system. However, in Europe, they become victims of numerous traffic congestion and pollution. Europe has been faced with the challenge of how to improve transport policy without jeopardizing economic development and freedom of movement. How to make the existing mobile system more balanced, smarter and less harmful to the environment? Intercoastal traffic connection has already proved to be an efficient, economical and safe form of transport, favorable

prometnog sustava koji bi tada mogao udovoljiti sadašnjim i budućim zahtjevima ekonomske ekspanzije, povećanja trgovine i rasta stanovništva. Ključnom za uspjeh pokazala se sposobnost prevoženja velikih količina tereta i izbjegavanje glavnih graničnih prijelaza i cestovnih zakrčenja.

Rezultati istraživanja u ovome radu ukazuju da će se međuobalno prometno povezivanje teško "samo" nositi s problemima cestovnog prometa, i stoga mora postati sastavni dio transportnih distribucijskih lanaca, a uspjeh će ovisiti o suradnji s cestovnim i željezničkim prometom, pri čemu će ga integracija u logistički sustav dodatno unaprijediti. Međutim, rezultati ukazuju da je takva integracija moguća samo ako se svaki od pojedinih oblika transporta konstantno modernizira i razvija sukladno načelima održivog razvoja. Međuobalno prometno povezivanje mora postati dio složenog intermodalnog pristupa, s razvijenom mrežom tereta i aktivnom suradnjom s ostalim oblicima transporta. Europska komisija zaslužna je za stvaranje potrebnih uvjeta, a sam razvoj prepušten je industriji i svakoj državi zasebno.

Republika Hrvatska mora slijediti postojeće trendove, te je od nacionalne važnosti razvijati mrežu željeznica i izgradnju intermodalnih terminala. Jedino na taj način Hrvatska će moći aktivnije sudjelovati u razvoju koncepta međuobalnog prometnog povezivanja i pomorskih "autoputova".

to environment preservation. It is designed to improve the efficiency of intermodal transport system which would then be able to meet present and future requirements of economic expansion, trade increase and population growth. Key to the success proved to be in the capability of carrying large amounts of freight and avoiding main border crossings and road congestion.

The results of this research show that it will be hard for intercoastal traffic connection to cope with the problems of road traffic all by itself. It has to become an integral part of transportation distribution chains, and its success depends on cooperation with road and rail traffic where its integration in the logistics system will further enhance. However, such integration is possible only if each form of transport constantly modernize and sustainable develop evolves. Intercoastal traffic connection has become part of a complex intermodal approach, with a developed freight network and active cooperation with other modes of transport. The European Commission is responsible for creating the necessary conditions, and the development is given to the industry and each country individually.

The Republic of Croatia has to follow existing trends, and it is of national importance to constantly develop the railway network and the construction of intermodal terminals. This is the only way for Croatia to be able to participate more actively in developing the concept of intercoastal transport connections and sea 'motorways'.

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