



Croatian government project  
*Study of Nautical Tourism  
Development in Croatia*

**YACHTING BERTHS IN TRADITIONAL  
PORTS ON CROATIAN ISLANDS**

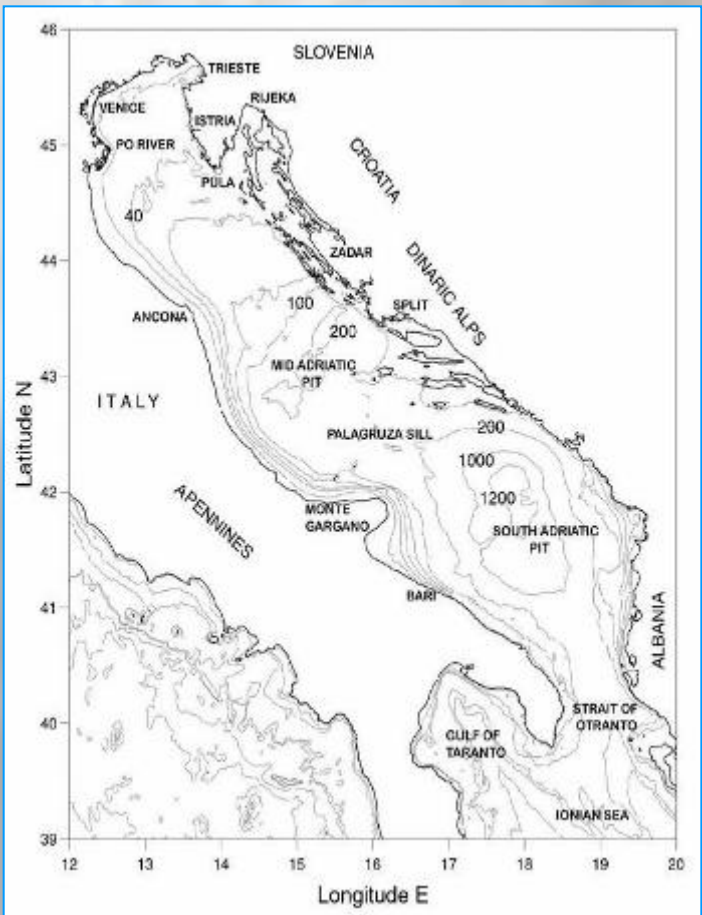
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Prof dr sc Srećko Favro, Ph.D. Eng.

Sworn court marine expert witness

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# CHARACTERISTICS OF RELIEF IN THE CROATIAN ADRIATIC SEA AREA



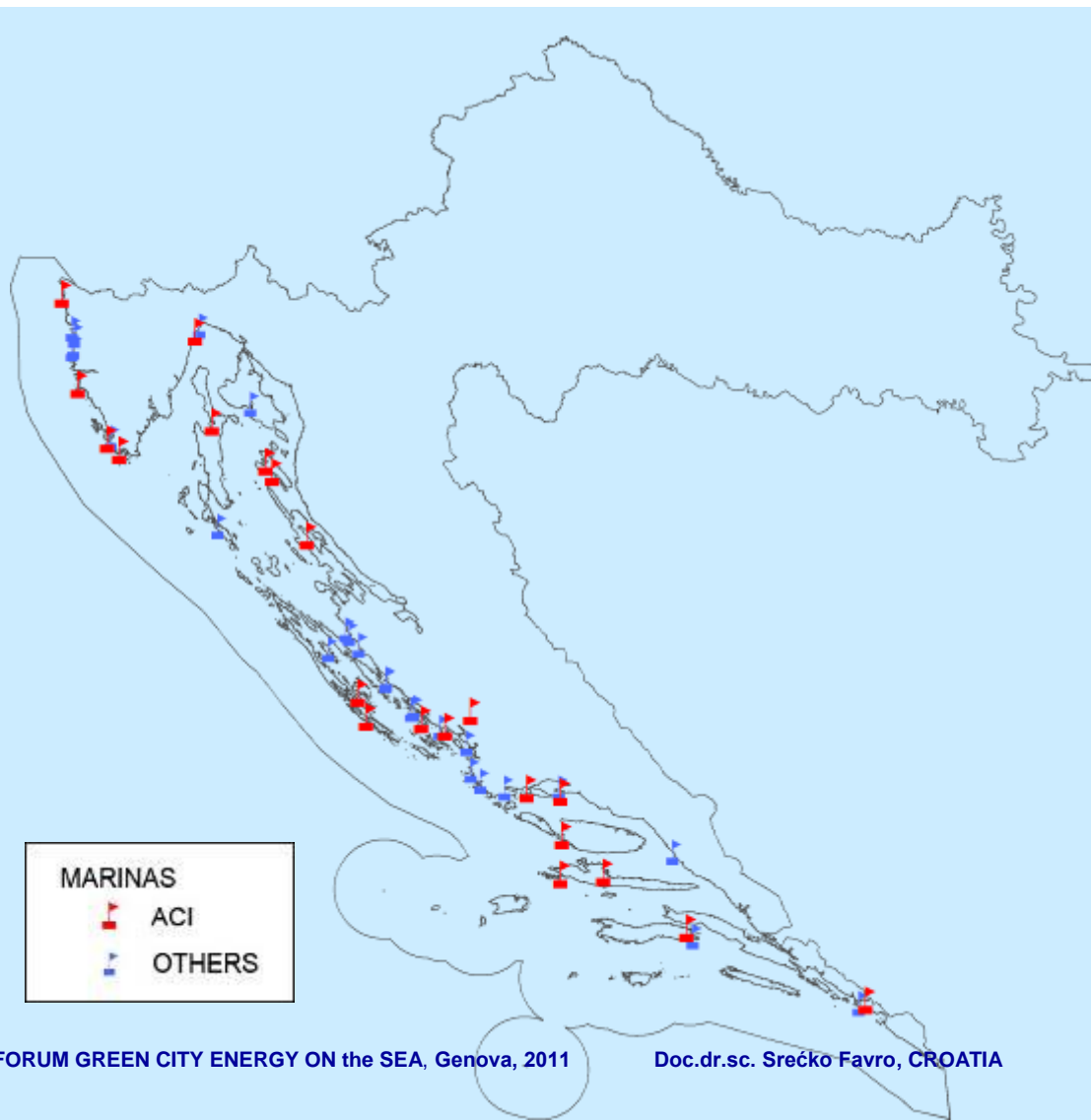
- The Adriatic Sea is a deeply indented gulf of the Mediterranean Sea
- Length: 475 M
- Width: 117 M
- Surface area: 138595 km<sup>2</sup>
- Volume: 34977 km<sup>3</sup>
- Coastline length (mainland and islands) 8281 km
  - Croatia 6278 km (75,8%)
  - Italy 1272 km (15,4%)
  - Albania 406 km (4,9%)
  - Montenegro 274 km (3,1%)
  - Slovenia 43 km (0,5%)
  - Bosnia and Herzegovina (BIH) 21 km (0,3%)
  - Islands
    - Croatian Adriatic: 1246 islands, islets, and rocks
    - Largest island: Cres 405,7 km<sup>2</sup>
    - Greatest depth: 1233 m

# *UNTACHED NATURAL RESOURCES*

## *virgin nature areas*



# CAPACITIES OF NAUTICAL TOURISM TODAY



**MARINAS**

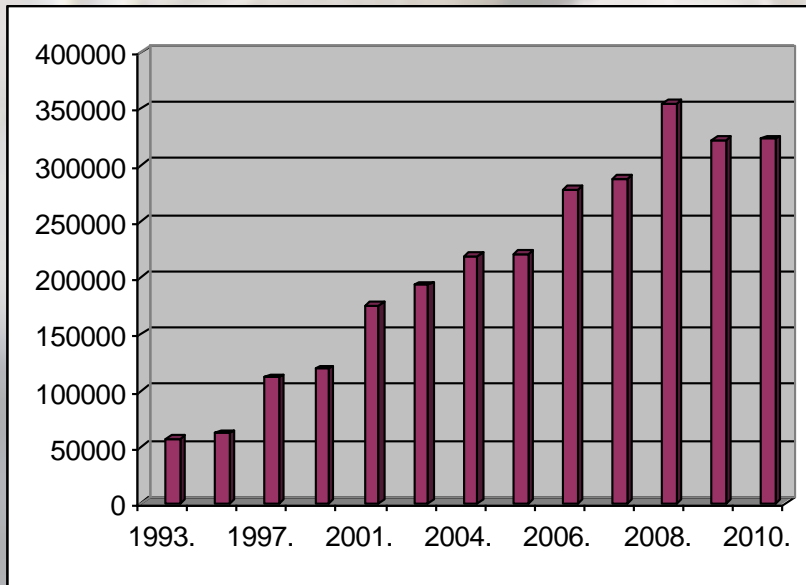
-  ACI
-  OTHERS

## CROATIAN MARINAS

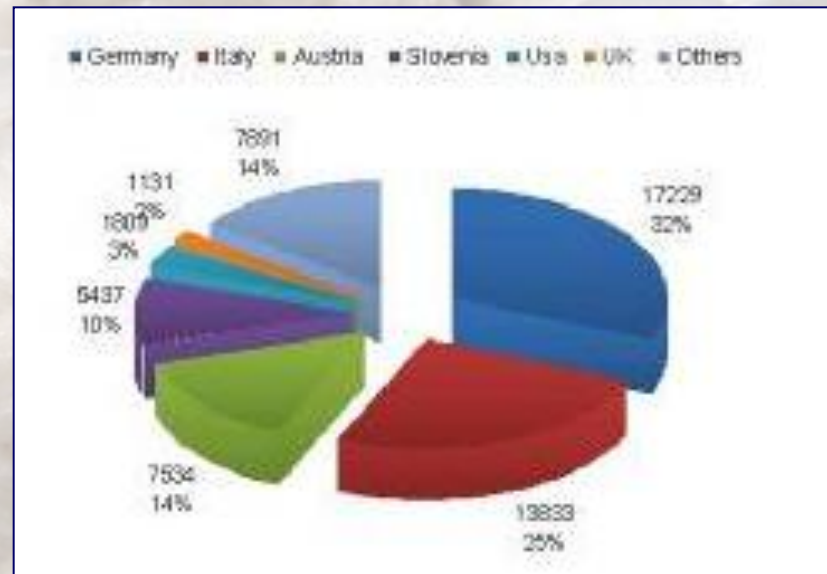
- ACI UMAG
  - NOVIGRAD - LUKA (CIVITAS NOVA)
  - ČERVAR PORAT
  - PARENTIUM
  - FUNTANA - LUKA
  - VRSAR - LUKA
  - ROVINJ - VALALTA
  - ACI ROVINJ - LUKA I
  - ACI PULA - LUKA
  - PULA - VERUDA
  - ACI POMER
- 
- OPATJIA
  - ACI IČIĆI
  - ACI CRES
  - PUNAT
  - NEREZINE
  - MALI LOŠINJ
  - ACI SUPETARSKA DRAGA
  - ACI RAB
- 
- ACI ŠIMUNI
  - BORIK - ZADAR
  - TANKERKOMERC - ZADAR
  - DALMACIJA - BIBINJE - SUKOŠAN
  - OLIVE ISLAND - SUTOMIŠĆICA
  - TANKERKOMERC - VELI IŽ
  - KORNATI - BIOGRAD n/m
  - ŠANGULIN - BIOGRAD n/m
- 
- ACI ŽUT
  - ACI PIŠKERA
  - BETINA
  - HRAMINA - MURTER
  - ACI JEZERA
  - TRIBUNJ
  - ACI VODICE
  - ACI SKRADIN
  - NCP MANDALINA
  - SOLARIS
  - KREMIK - PRIMOŠTEN
  - FRAPA - ROGOZNICA
- 
- AGANA - MARINA
  - ACI TROGIR
  - KAŠTELA
  - ACI SPLIT
  - ACI MILNA
  - VLASKA - MILNA
  - ACI PALMIŽANA
  - ACI VRBOSKA
- 
- ACI KORČULA
  - LUMBARDA
  - ACI DUBROVNIK

# MODERN DEVELOPMENT AND TRENDS IN CROATIAN NAUTICAL TOURISM – Demand

THE NUMBER OF SAILINGS IN FROM 1993 - 2010



THE NUMBER OF SAILINGS IN ACCORDING TO FLAGS IN 2010

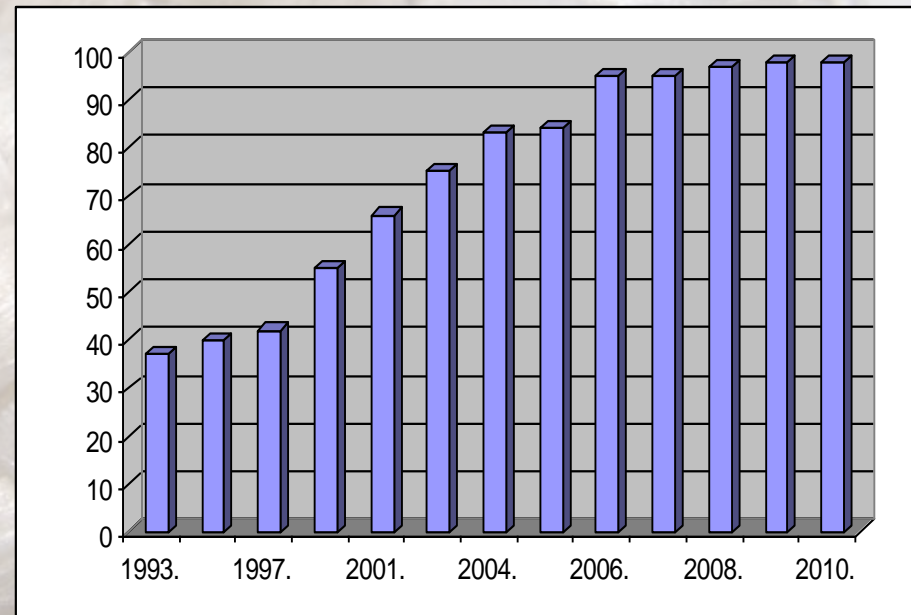
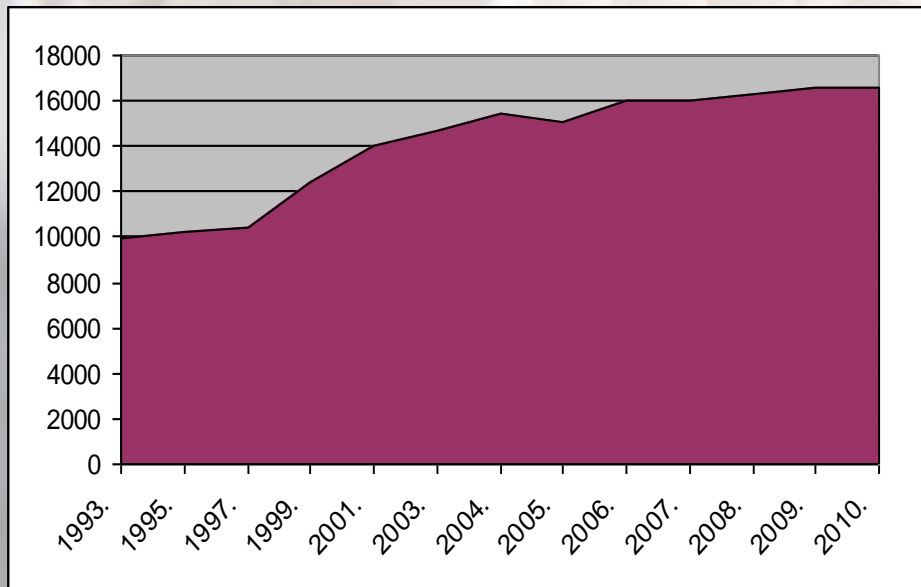


1995	1997	1999	2001	2003	2004	2005	2006	2007	2008	2009	2010
62285	111296	119213	175762	193087	219436	220972	278506	287307	354327	322177	322825

# DEVELOPMENT OF NAUTICAL TOURISM CAPACITIES - Offer

	1993	1995	1997	1999	2001	2003	2004	2005	2006	2007	2008	2009	2010
No. Ports	37	40	42	55	66	75	83	84	95	95	97	98	98

## NUMBER OF NAUTICAL TOURISM PORTS



## NUMBER OF BERTHS

1995	1997	1999	2001	2003	2004	2005	2006	2007	2008	2009	2010
10.258	10.465	12.437	14.009	14.730	15.407	15.058	15.973	15.973	16.317	16.560	16.560

# NAUTICAL TOURISM OF CROATIA

Croatia has 98 ports of nautical tourism

- 54 marinas
- 7 dry marinas of vessels ashore
- 15 anchorages
- Capacity of 12.863 vessels
- 22.000 vessels in transit
- 9.516 vessels with permanent anchorage

159.905 foreign + 14.413 domestic vessels  
= 174.413 vessels in the Adriatic in Croatia

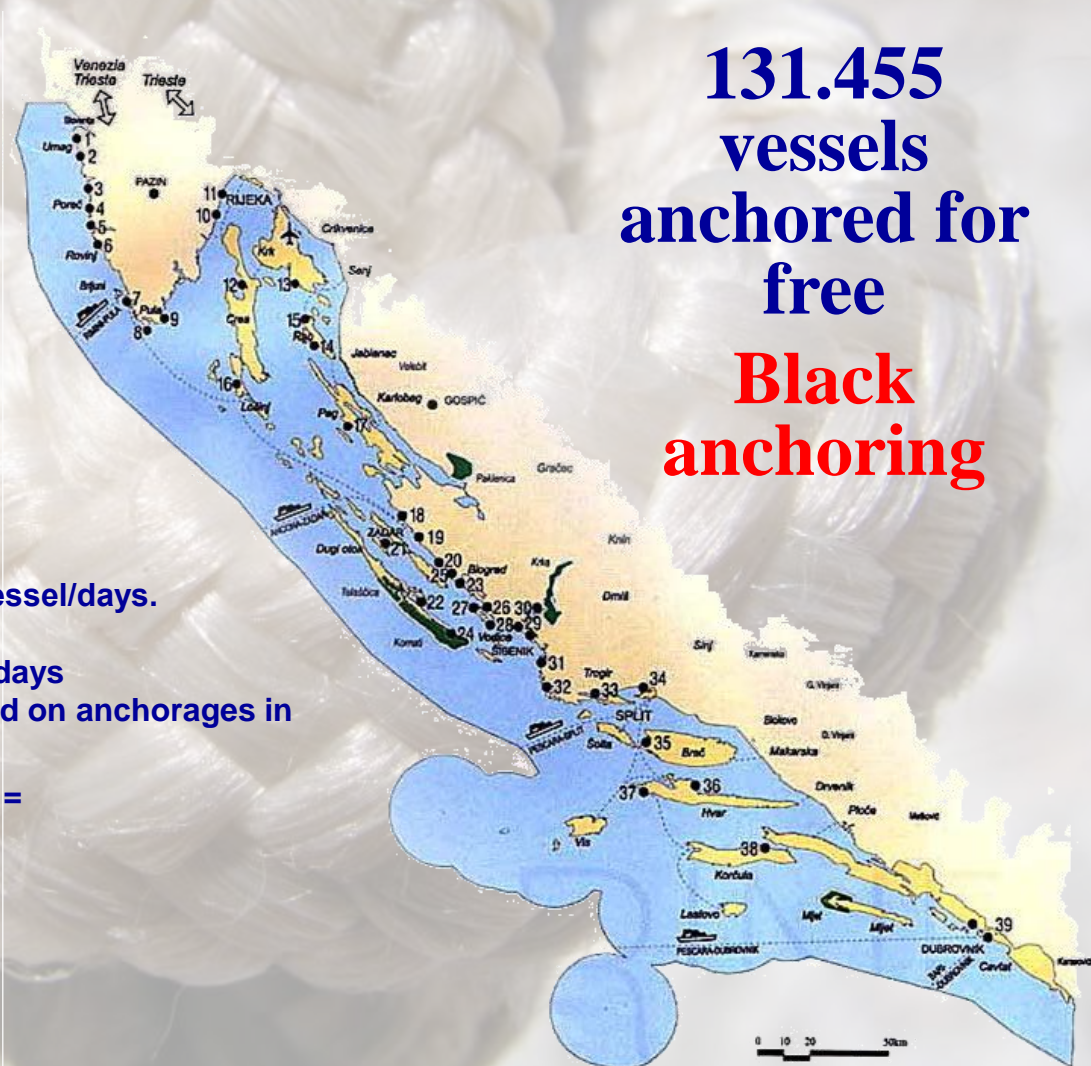
Today's capacities estimate to 550.000 vessel/days.

In 2010 there was 240.000 vessels/days

Approximately 310.000 vessels/days (not) recorded on anchorages in uncontrolled bays

310.000 vessels/days, 25€ a day =

**8,75 mil. EUR a year**





HYDROGRAPHIC  
INSTITUTE OF  
THE REPUBLIC  
OF CROATIA



INSTITUTE FOR  
TOURISM  
ZAGREB



INSTITUTE OF  
OCEANOGRAPHY  
AND FISHERIES  
CROATIA



CROATIAN  
URBANISTIC  
INSTITUTE  
ZAGREB



**NAUTICAL  
TOURISM**



FACULTY OF  
MARITIME  
STUDIES  
RIJEKA

**STUDY  
OF THE**

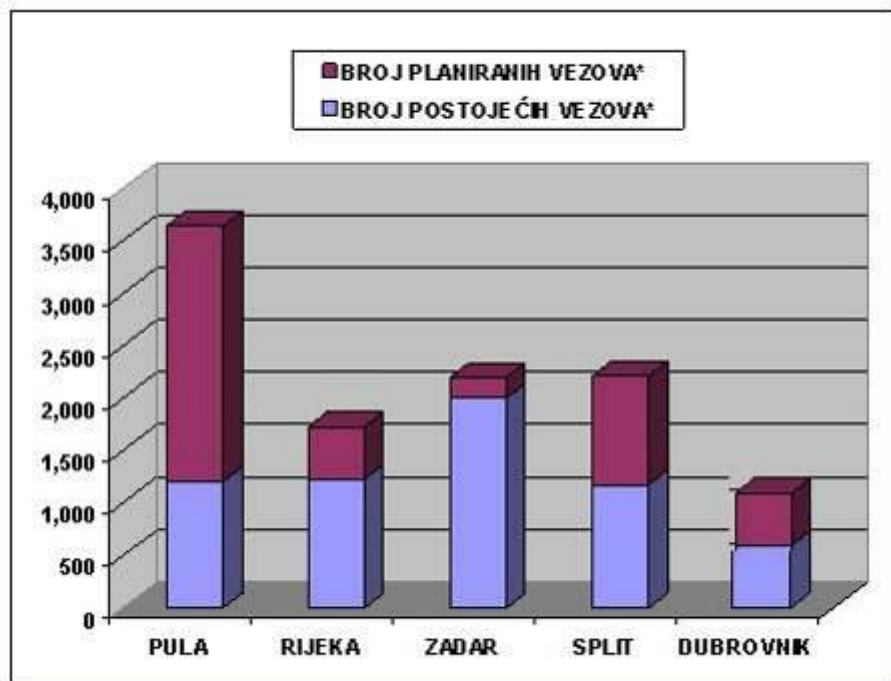


**DEVELOP  
MENT**





# PORTS OF NAUTICAL TOURISM IN COASTAL TOWNS AND AREAS OF AIRPORTS' INFLUENCE



- in areas of main airports' influence nautical centers for charter fleet should be developed

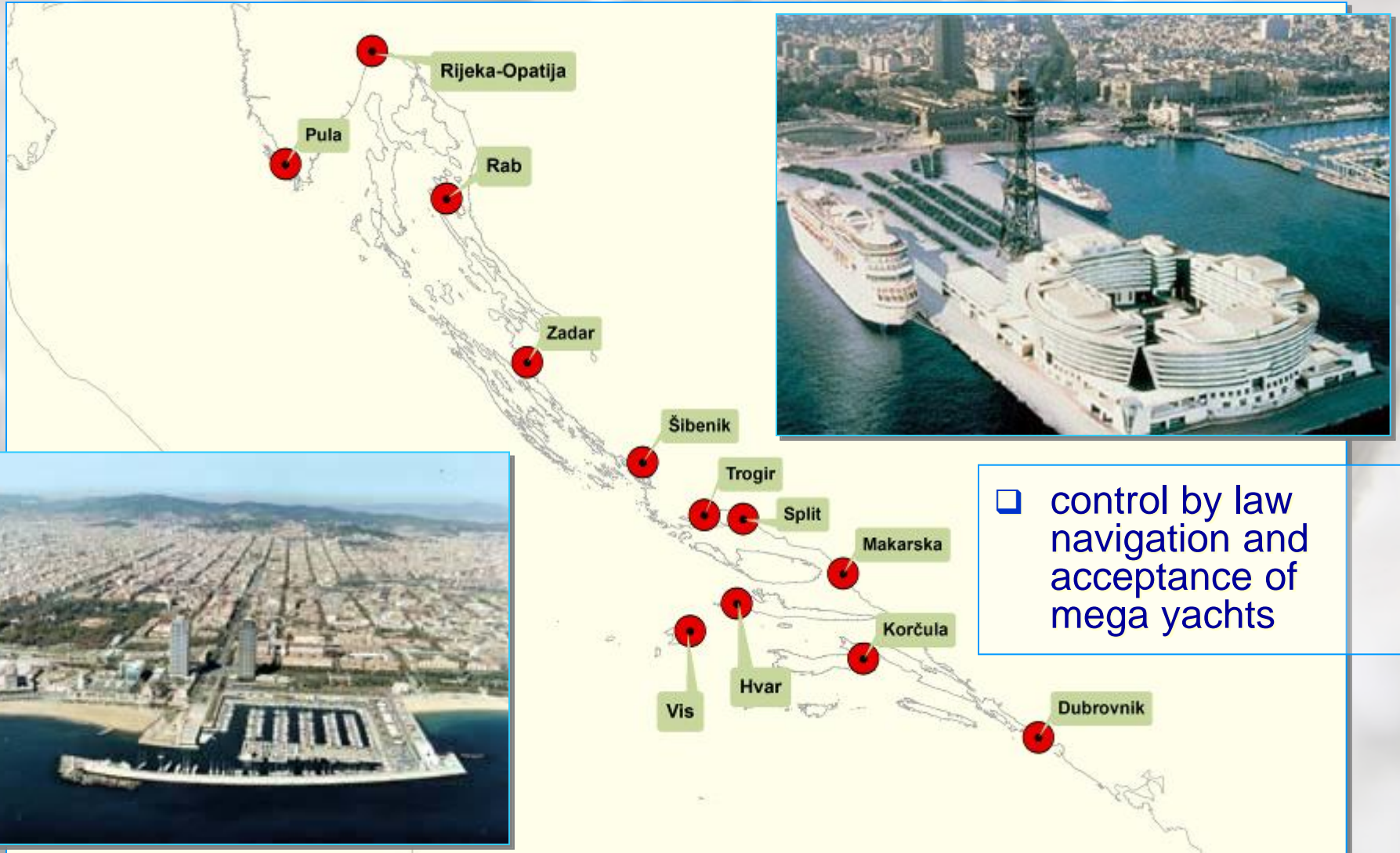
**GOAL additional 5000 berths in ports and marinas**

	PULA	RIJEKA	ZADAR	SPLIT	DUBROVNIK
BROJ POSTOJEĆIH VEZOVA*	1,200	1,226	2,000	1,170	550
BROJ PLANIRANIH VEZOVA*	2,450	500	200	1,040	500
<b>UKUPNI BROJ VEZOVA*</b>	<b>3,650</b>	<b>1,726</b>	<b>2,200</b>	<b>2,210</b>	<b>1,050</b>

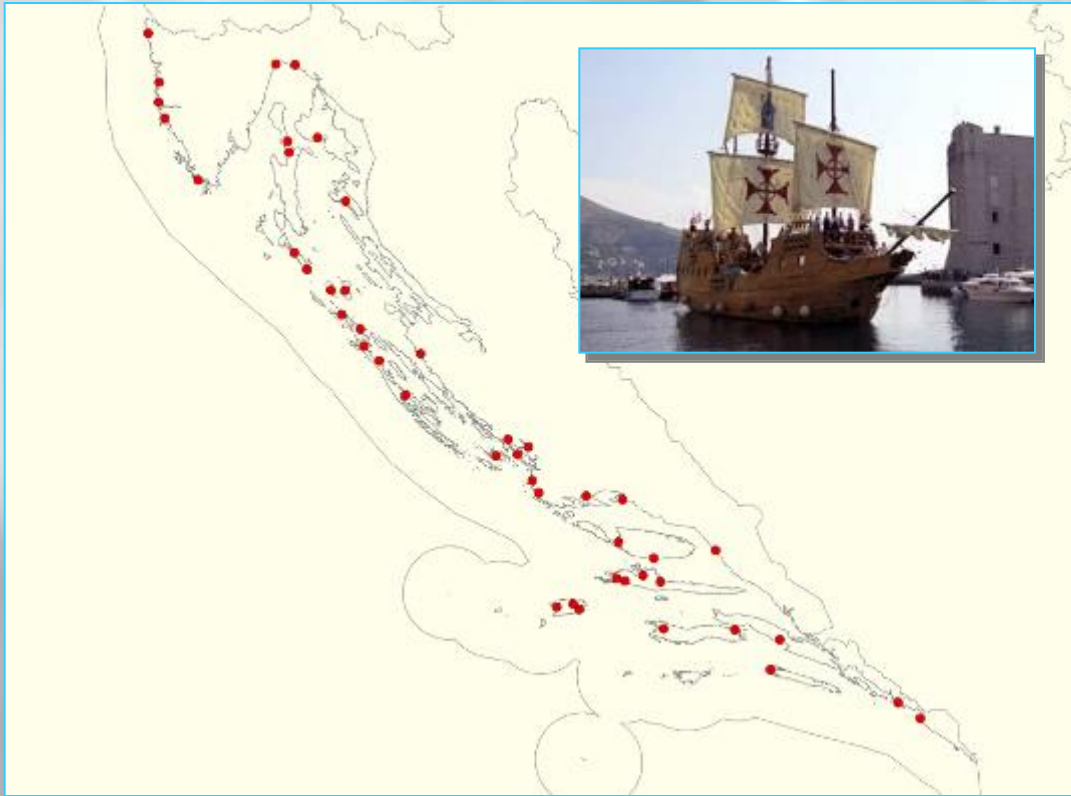
\* Prema podacima iz Prostornih planova.

**GOAL additional 5000 berths in dry marinas**

# ORGANIZING PORTS FOR MEGA YACHTS



# CRUISING AND EXCURSION PORTS FOR TRADITIONAL TALL SHIPS



Rijeka	Split	Ubli
Opatija	Bol	Brna
Krk	Vis	Jelsa
Rab	Hvar	Milna
Cres	Stari Grad	Kaprije
Mali Lošinj	Makarska	Skradin
Zadar	Korčula	Brbinj
Biograd	Vela Luka	Božava
Sali	Dubrovnik – Gruž	Molat
Vodice	Cavtat	Ist
Šibenik	Komiža	Silba
Zlarin	Trstenik	Olib
Primošten	Rovinj	Ilovik
Rogoznica	Poreč	Banjole
Trogir	Pomena	Vrsar, Umag

- ❑ construction of suitable infrastructure (electricity, water)
- ❑ establishing planning and reservation system
- ❑ organizing additional tourist offer (Croatian National Tourist Board)

# TRANSIT BERTHS ON ISLANDS

KRK	MOLAT	HVAR
CRES	DUGI OTOK	ŠČEDRO
LOŠINJ	UGLJAN	VIS
ILOVIK	ŽMINJAK	LASTOVO
RAB	KAPRIJE	KORČULA
PAG	PRVIĆ	PELJEŠAC
VIR	ZLARIN	MLJET
OLIB	DRVENIK V.	ŠIPAN
SILBA	ŠOLTA	LOPUD
PRERMUDA	BRAC	KOLOČEP

## GOAL additional 5000 berths

- expansion of existing berths in traditional island ports
  - use of existing infrastructure – small investments
- berths enlargement by setting pontoons – no concreting
  - respecting the most rigorous ecological standards
- organized moorings



An aerial photograph of a coastal archipelago, likely in Croatia, showing several islands and bays. The water is a deep blue, and the islands are covered in green vegetation. The text is overlaid on the image.

**SEASONAL YACHTING BERTHS IN  
TRADITIONAL PORTS ON ISLANDS**

**UNUSED POTENTIAL FOR  
DEVELOPMENT**

# NAUTICAL MANAGEMENT

## in the function of sustainable development

- Give nautical tourism one of the leading roles in sustainable development of Croatian islands
- Coordination and management in the function of globally adopted strategy and set strategic goals
- Defining and development in accordance with the overall protection policy of spatial and landscape value of the local seas
- Socio-economic development of inhabitants, locations and areas
- Reaching high efficiency and a continual and uniform development of local communities
- A new concept of partial management of subjects and objects having in mind to broaden the overall offer and complementary services

# PROJECT PURPOSE AND AIMS

## PURPOSE

- ❑ Valorise economic potential of Croatian islands
- ❑ Revive and stimulate their economic development
- ❑ Advance nautical tourism and meet its new needs
- ❑ Contribute to the protection of the environment and sustainable development of the island
- ❑ Activate an ecological awareness of modern tourism

## AIMS

- ❑ A quality monitoring upon preserving natural islands' bays by implementing high ecological criteria during an organised acceptance of boaters
- ❑ Activation of islands', regional and national economic resources
- ❑ Development of complementary activities in nautical tourism
- ❑ A rise in employing inhabitants on islands
- ❑ Stop migration from islands
- ❑ Contribution to the sustainable development of Croatian islands

# BASIC PROJECT TENETS

- ❑ Low investments – overall benefits
- ❑ Existing infrastructure in marinas
- ❑ Elimination of “Black anchoring“ – environment protection
- ❑ Agreement with local and regional authorities – using “green energy”
- ❑ Synergy with other projects of nautical and tourist offers
- ❑ Country Project supervision





# EVALUATION OF POTENTIAL PLACES WHERE PORTS OF NAUTICAL TOURISM COULD BE BUILT

## Multiple-criteria analysis of each location:

- **historical and environmental values**
- **geographical-meteorological characteristics**
- **navigational characteristics**
- **past influence on the environment and risks**
- **infrastructure: electricity, water supply and telecommunications**
- **accessibility**
- **defined locations in regional plans**
- **market demands – areas of the intensive nautical tourism**
- **possibility for the development of complementary activities**



# MEASURES FOR ACHIEVING SET AIMS

- ❑ **Organization of marinas in accordance with regional planning of island districts, cities and counties within the existing marinas**
- ❑ **Forming conditions for the development of the entrepreneurship on islands**
- ❑ **Employment of unemployed inhabitants on islands**
- ❑ **Ensuring Croatia a major role in the distribution of international tourist consumption**
- ❑ **Organization of state administration on the model of developed European countries**

# TEHNIICAL CONCEPT / THE ASPECT OF ORGANISING TOURIST MARINAS

- ❑ Complete integration into the existing ambience
- ❑ Maximum protection of the environment
- ❑ Usage of traditional island ports and marinas with the existing infrastructure
  - Capacity in accordance with possibilities and needs of a particular location
  - There is no fixed building ⇒ economical temporal installations and removable solutions
  - Berths on pontoones or on four-berth buoys - coast
  - If necessary, an additional protection of the local seas with floating pontoones that protect from waves
  - Additional alternative and renewable sources of energy (wind, solar energy, desalinators)
  - Everyday organised removal of selected waste



# MANAGEMENT OF ENVIRONMENT PROTECTION

- ❑ Introduction of Environment Management System  
ISO 14001:2000
- ❑ Cooperation with the Port Authority and local government for location data gathering
- ❑ The overall research while choosing the location (hydrological, oceanographic and meteorological)
- ❑ Valorisation of localities by simulating possible changes in the eco-system
- ❑ Investments in the ecological infrastructure (containers for used oils, sanitary water and waste)
- ❑ ECO vessels for an emergency sanitization of possible contaminations
- ❑ Permanent control of water and coast quality by cooperating with local ECO patrols

# FINANCING THE PROJECT

## □ For the Pilot project of 10 marinas:

- Means of the County Port Authority
- Fund for regional development – Pre-accession EU funds
- Fund for development and employment
- Means of local government

## □ For the continuation of the Project:

- By selling a share in newly founded associations-marinas partners-local government
- EU structural funds
- International investors – local partners

•UGLJAN Island

ZADAR

OLIVE ISLAND MARINA



•HVAR Island



**MARINA ACI Vrboska**

MURTER Island



**MARINA ACI JEZERA**



ŽUT Island

**MARINA ACI ŽUT**



BRAČ Island



**MARINA ACI MILNA**

# ŠOLTA Island



**Communal port MASLINICA**

KORČULA Island



**MARINA ACI KORČULA**



marina ACI Rab

RAB Island

Veli Iž Island



Marina Veli Iž

# CONCLUSION

- **Renowned for its exceptional beauty, the Adriatic is among the world's best nautical destinations**
- **A new dimension of the Adriatic, attractive to those in search of something quite special: high concern for the environment, and preserved flora and fauna**
- **The Adriatic, a place with kind and friendly people willing to:**
  - **offer any ship, not only berth but a safe and organized stay as well**
  - **offer visitors different attractions, satisfying diverse interests through a variety of activities**

# CROATIAN ISLANDS

a place where happy and contented people live



**THANK YOU FOR YOUR ATTENTION**

