

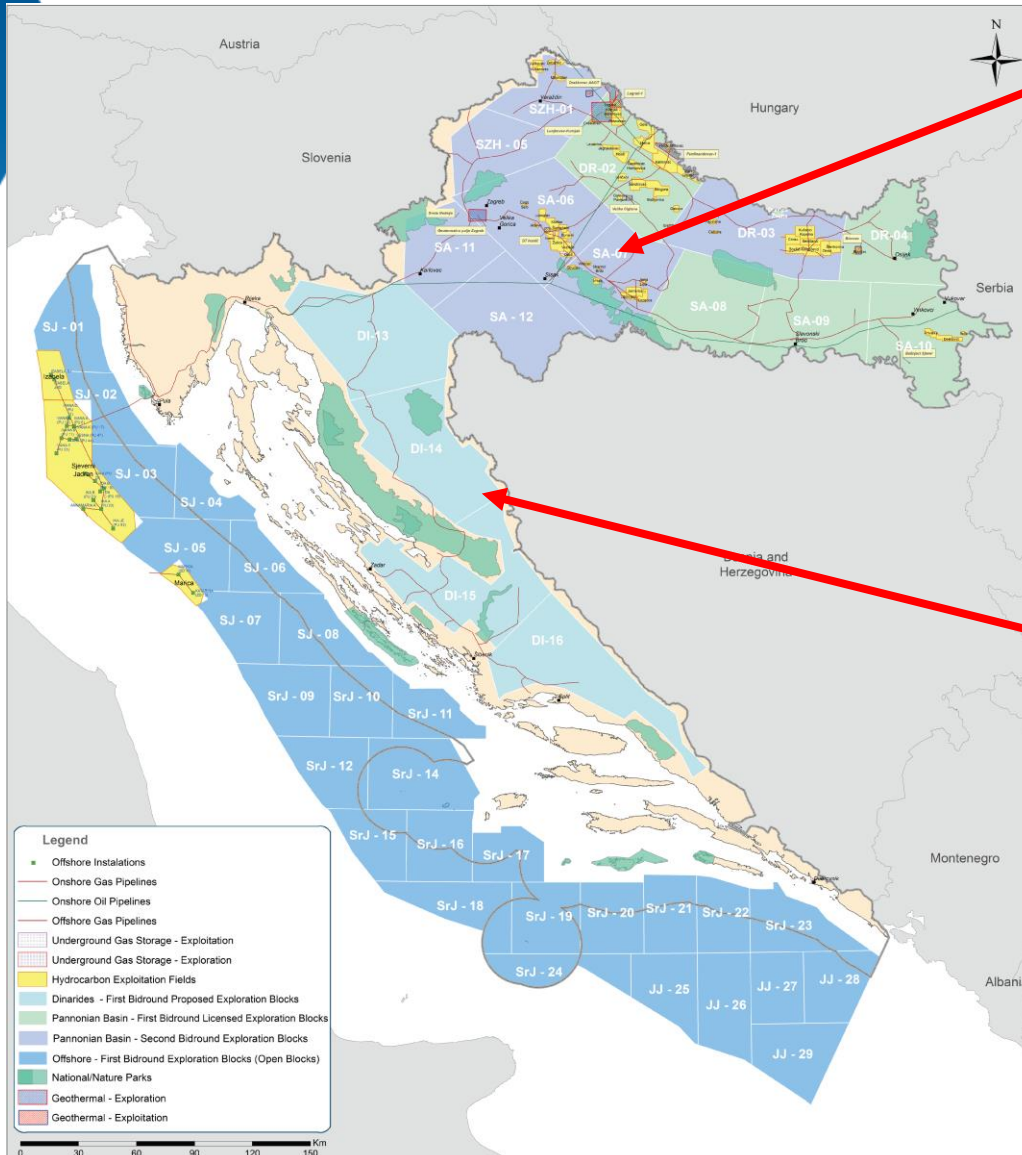


CROATIAN ONSHORE BIDDING ROUNDS

2nd Bidding Round - Pannonian Basin

3rd Bidding Round – Dinarides Area

ONSHORE BIDDING ROUNDS FOR GRANTING LICENCES FOR EXPLORATION AND PRODUCTION OF HYDROCARBONS



PANNONIAN BASIN

2nd Onshore Bidding Round

- Prolific mature basin
- 7 exploration blocks
- Remaining part of Pannonian Basin
- Block DR-03 is also included

DINARIDES

3rd Onshore Bidding

- Underexplored frontier area
- 4 exploration blocks
- Exploration period could last 7 years

(3 + 2 + extended 2x1)

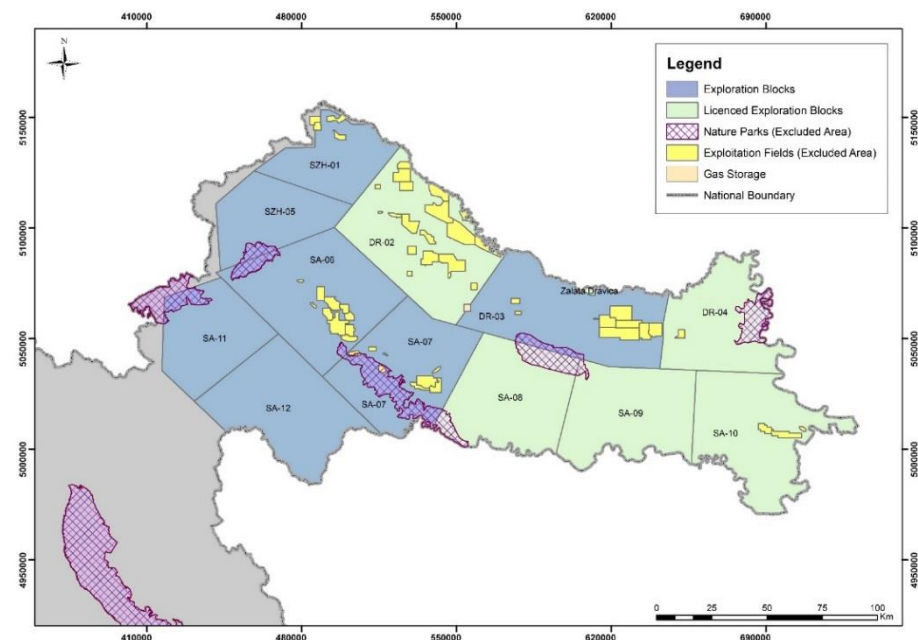
ONSHORE BIDDING ROUND FOR GRANTING LICENCES FOR EXPLORATION AND PRODUCTION OF HYDROCARBONS – PANONNIAN BASIN

1st Onshore Bidding Round for granting licences for exploration and production of hydrocarbons

- 18 July 2014 – 18 February 2015
- 6 exploration blocks within Pannonian Basin
- Awarded 5 licences for exploration and production of hydrocarbons
- 4 Production Sharing Agreements signed with Vermilion Zagreb Exploration Ltd. (DR-04, SA-08, SA-09, SA-10)
- 1 Production Sharing Agreement signed with INA-Industrija nafte Plc. (DR-02)

2nd Onshore Bidding Round for granting licences for exploration and production of hydrocarbons

- 7 exploration blocks
- Remaining part of Pannonian Basin
- Block DR-03 is also included, it was offered in 1st Onshore bidding round, but PSA was not signed



BIDDER SELECTION CRITERIA - PANNONIAN BASIN

Criteria for exploration blocks SZH-01, DR-03, SA-06, SA-07		Mark (up to)	Weight %
First exploration phase (3 years)	2D seismic survey	5	70
	3D seismic survey	40	
	Other surveys	5	
	Reprocessing of seismic data	2	
	Gravimetry and magnetometry	2	
	Other	1	
	Number and depth od exploration wells	50	
Second exploration phase (2 years)	2D seismic survey	5	20
	3D seismic survey	35	
	Number and depth od exploration wells	60	
Signature bonus		100	10

BIDDER SELECTION CRITERIA – PANNONIAN BASIN

Criteria for exploration blocks SZH-05, SA-11, SA-12		Mark (up to)	Weight %
First exploration phase (3 years)	2D seismic survey	40	70
	3D seismic survey	5	
	Other surveys	15	
	Reprocessing of seismic data	5	
	Gravimetry and magnetometry	5	
	Other	5	
	Number and depth od exploration wells	40	
Second exploration phase (2 years)	2D seismic survey	30	20
	3D seismic survey	10	
	Number and depth od exploration wells	60	
Signature bonus		100	10

PANNONIAN BASIN BIDDING ROUND TIME FRAMEWORK, APPLICATION REQUIREMENTS

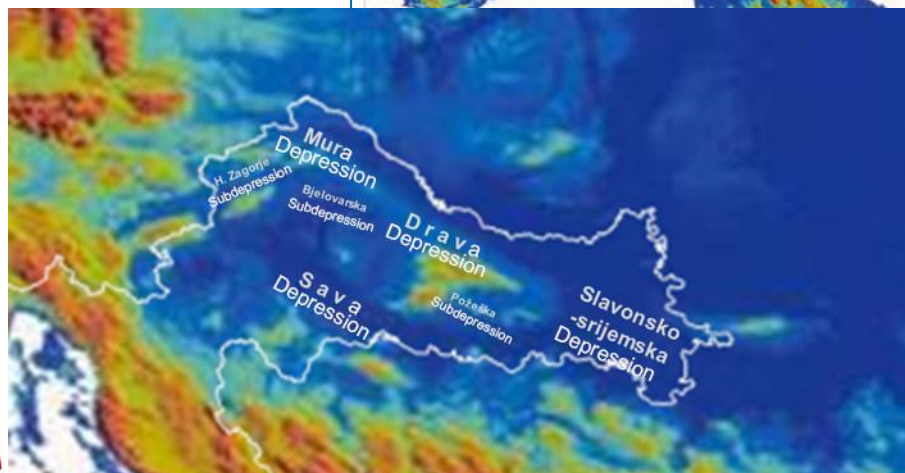
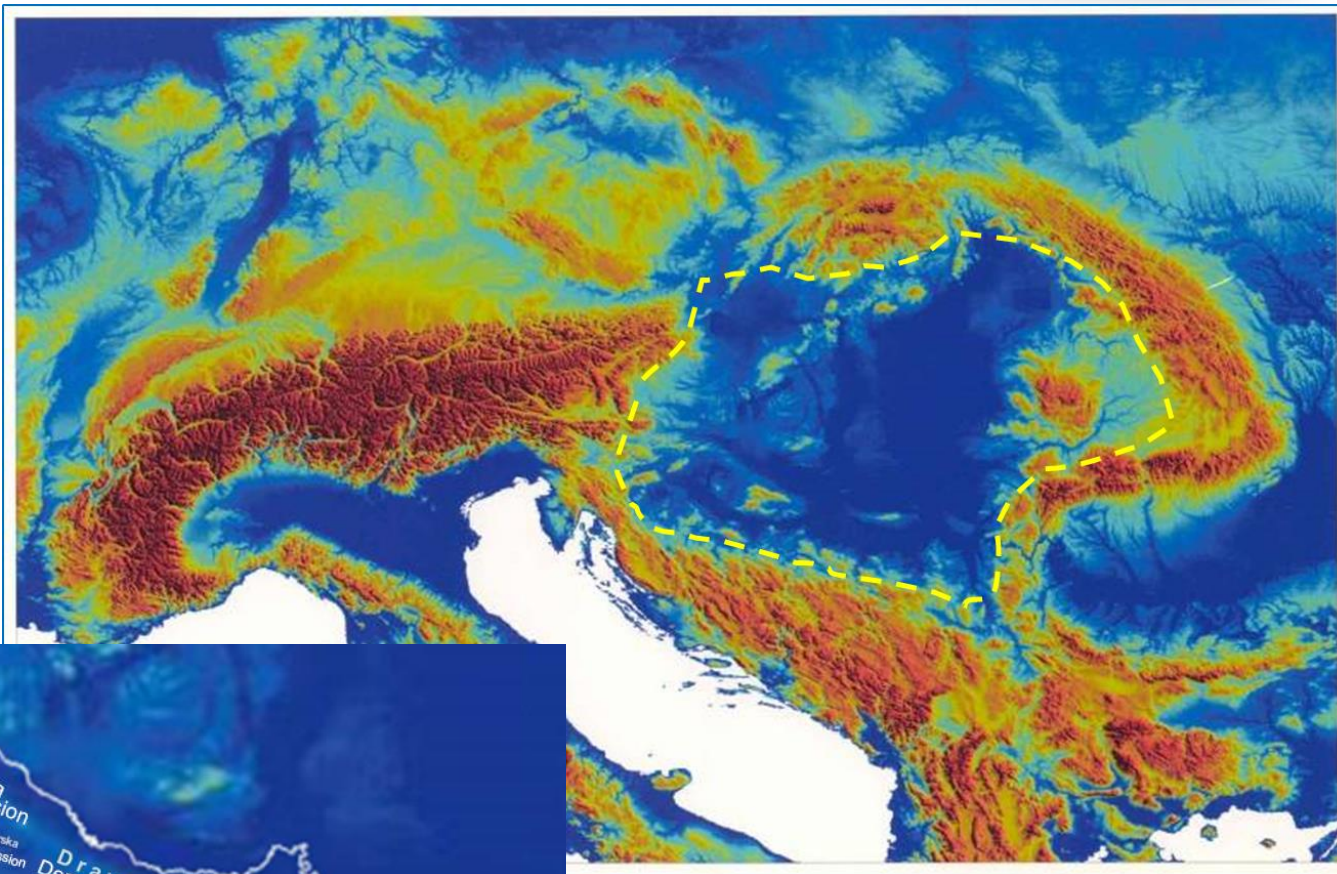
Tentative Bidding Schedule

November 2nd 2018	Bidding Round opening
June 28th 2019, 12:00 a.m., local time	End date for submitting bids
October 2019	Indicative deadline for granting licences

Bidders must satisfy:

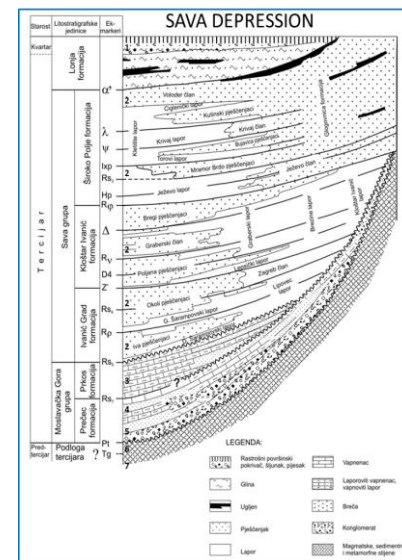
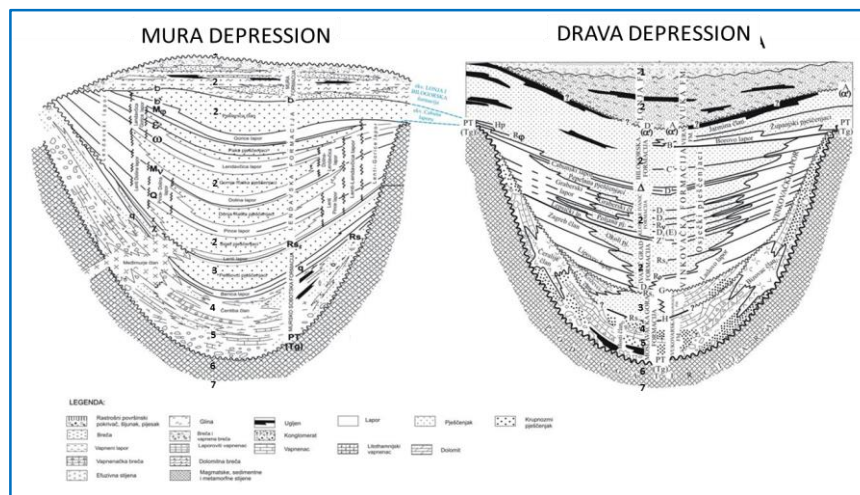
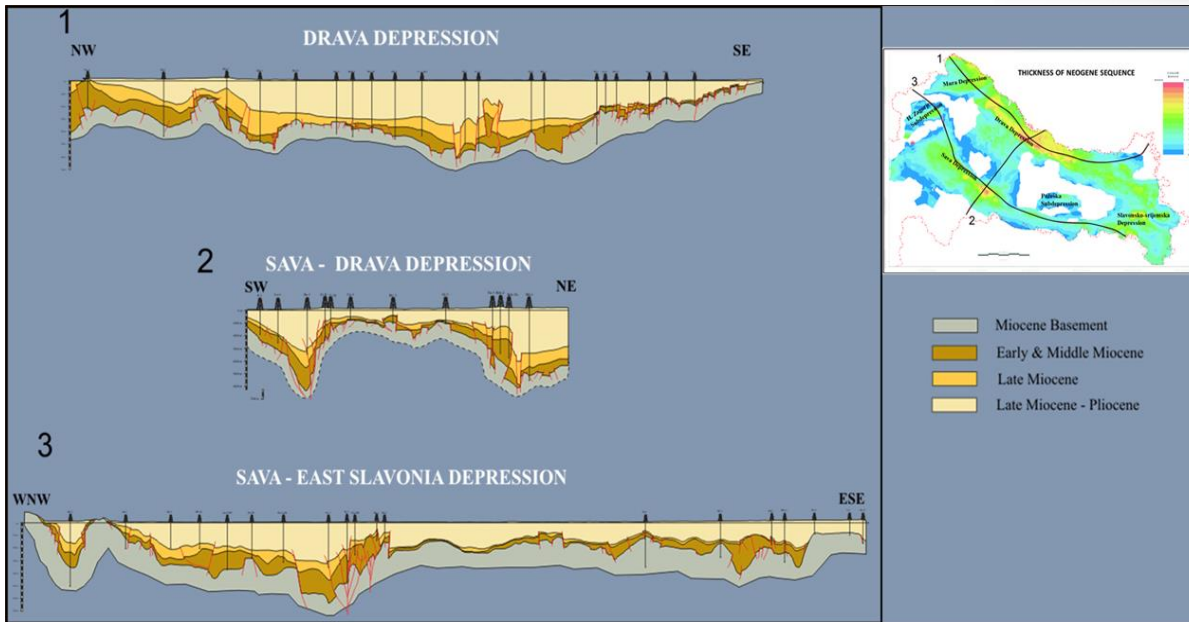
- Administrative requirements
- Formal requirements
- Legal requirements
- Financial requirements
- Technical requirements
- Health, safety and environment requirements

PANNONIAN BASIN



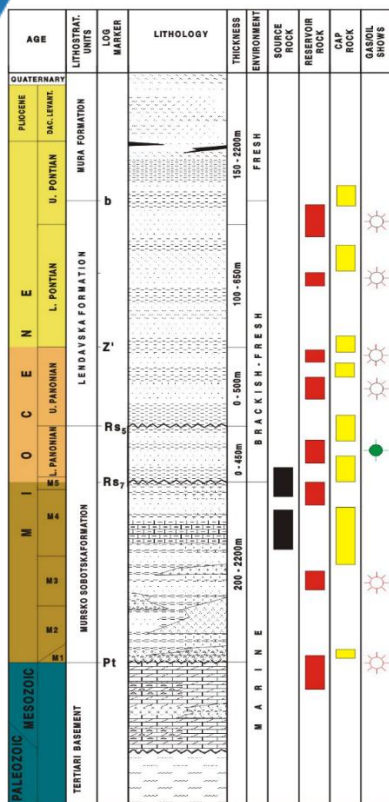
SCHEMATIC GEOLOGICAL CROSS SECTIONS OF DEPRESSIONS

SCHEMATIC LITHOSTRATIGRAPHIC SECTION

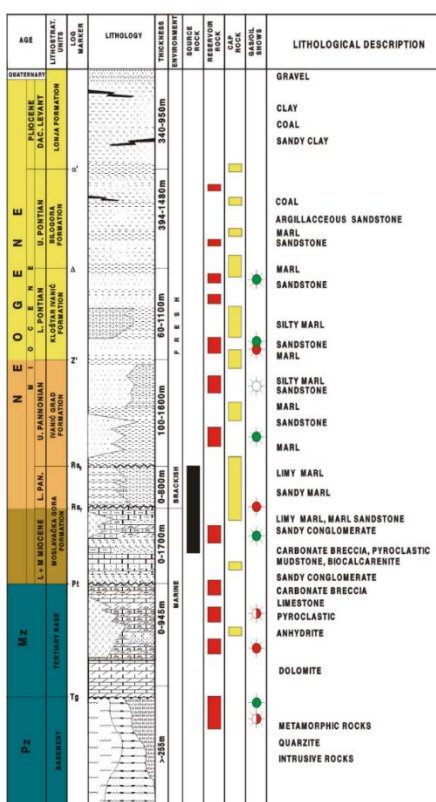


STRATIGRAPHIC COLUMNS OF DEPRESSIONS GEOLOGICAL PLAYS

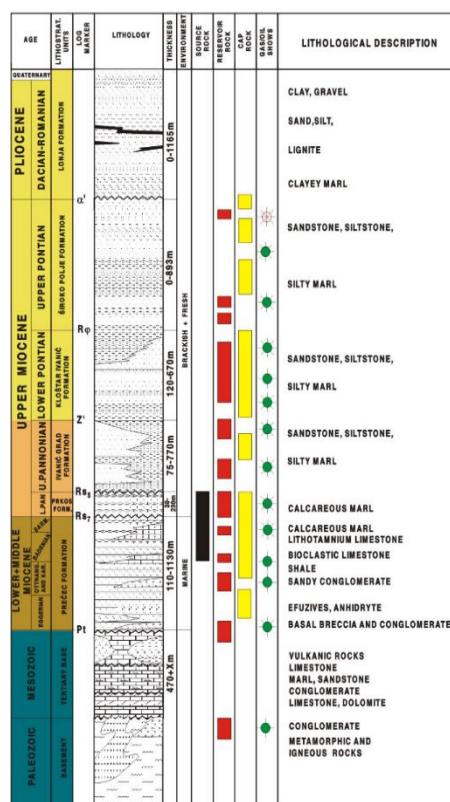
Stratigraphic Column of Mura Depression



Stratigraphic Column of Drava Depression



Stratigraphic Column of Sava Depression



1. Miocene-Pliocene clastic and/or carbonate series draped over basement highs form the most significant play types in the basin (such play types are represented by post-rift compactional drape varieties)
2. Fractured and/or weathered basement (highs) with or without Miocene basal conglomerate and sealed by Miocene mudstones form a very important group of plays (Play types 1 and 2 are sometimes found together)
3. Miocene extension-related, tilted fault blocks containing reservoirs of various ages form an important group of plays (Pre-rift/Basement compactional drape)
4. Inversion-related play types are found in the anticlines associated with reactivation of strike-slip faults and include Miocene-Pliocene clastic reservoirs
5. Syn-rift-related, Miocene sandstone series truncated and sealed by post-rift mudstones (this play type formally may belong to type 1 plays)

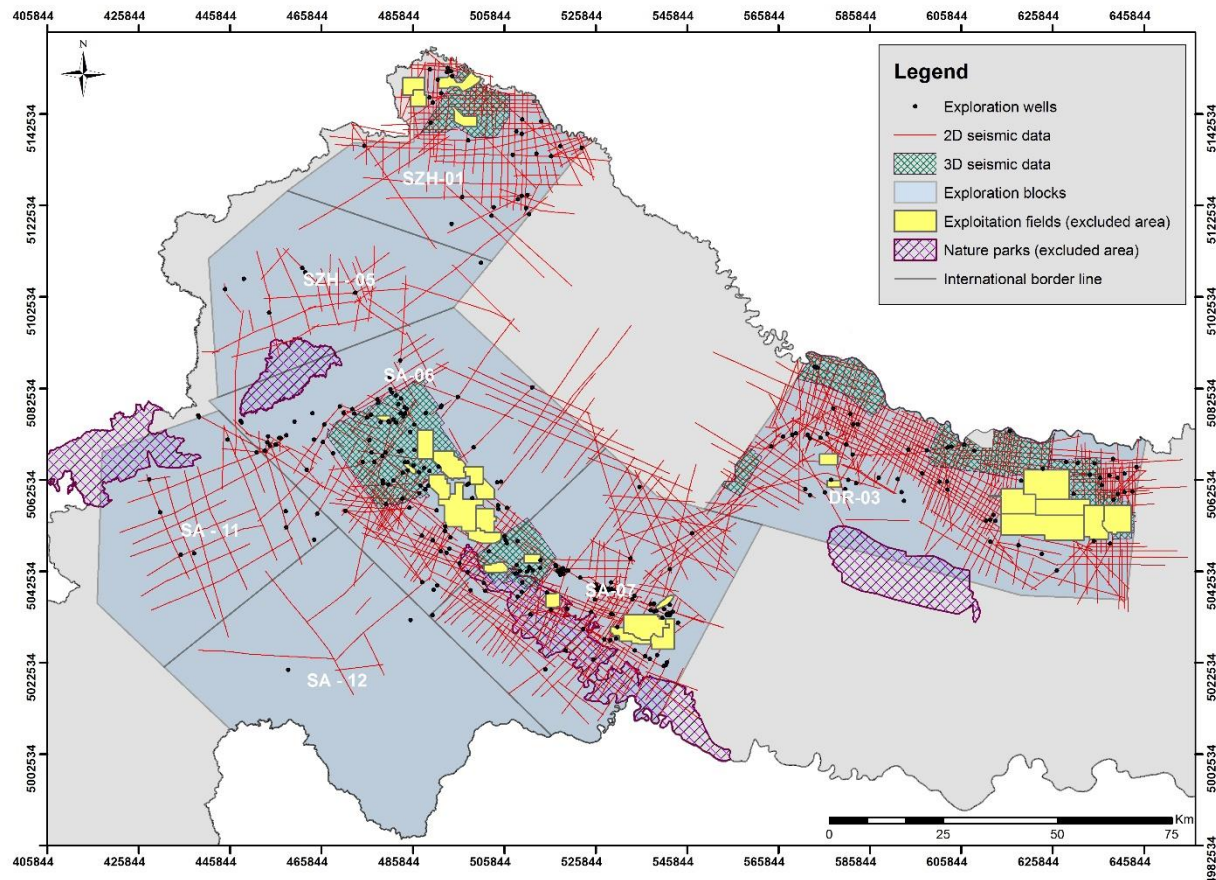
EXPLORATION BLOCKS OFFERED IN 2nd ONSHORE LICENCING ROUND

7 exploration blocks, with total acreage 14.272 km², contain the following data:

- 10.016 km of 2D legacy seismic data in stk/mig format
- 1.796 km² of 3D legacy seismic data in stk/mig format

All the data can be seen in our Data Room in Zagreb.
If you are interested, please contact us at

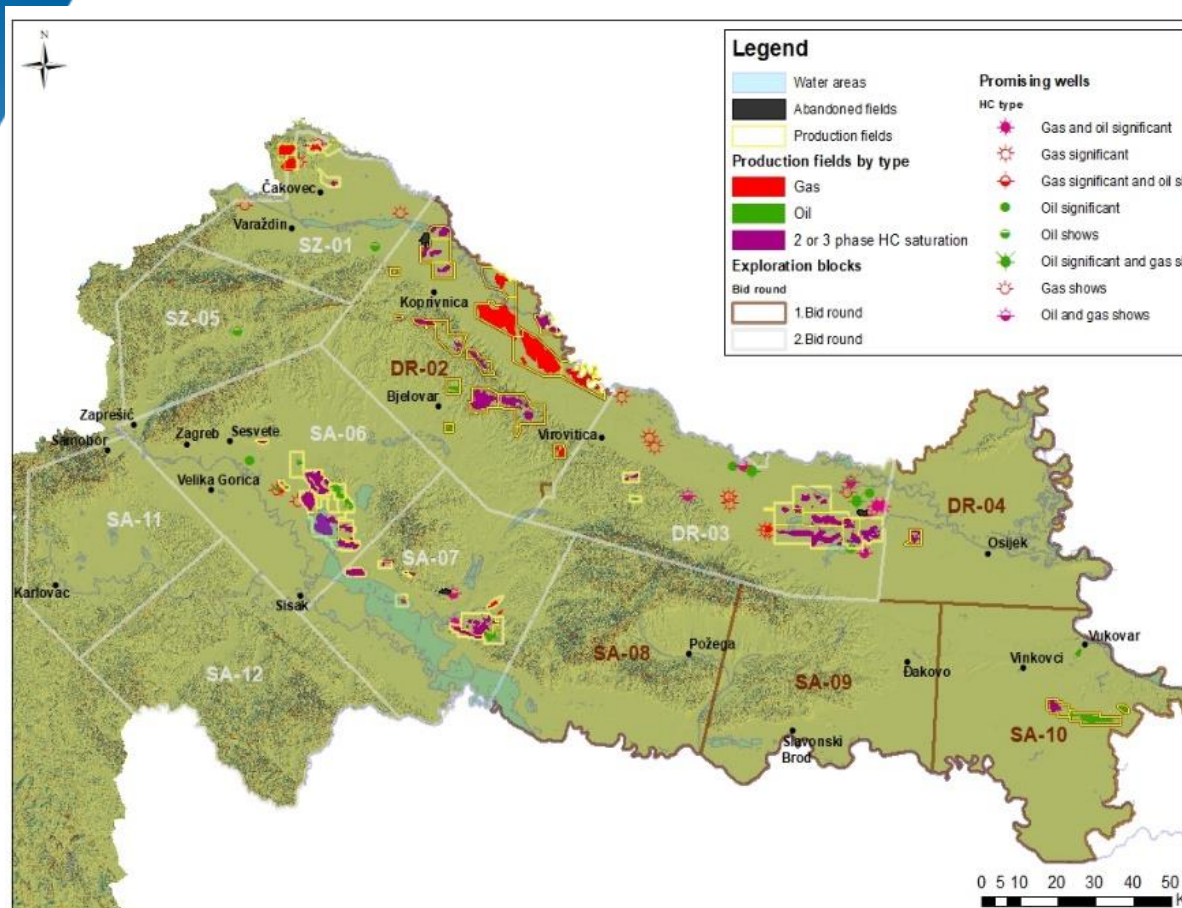
info@azu.hr



Before visiting you will be provided with tendering documentation, data inventory and spatial data.

GREAT POTENTIAL

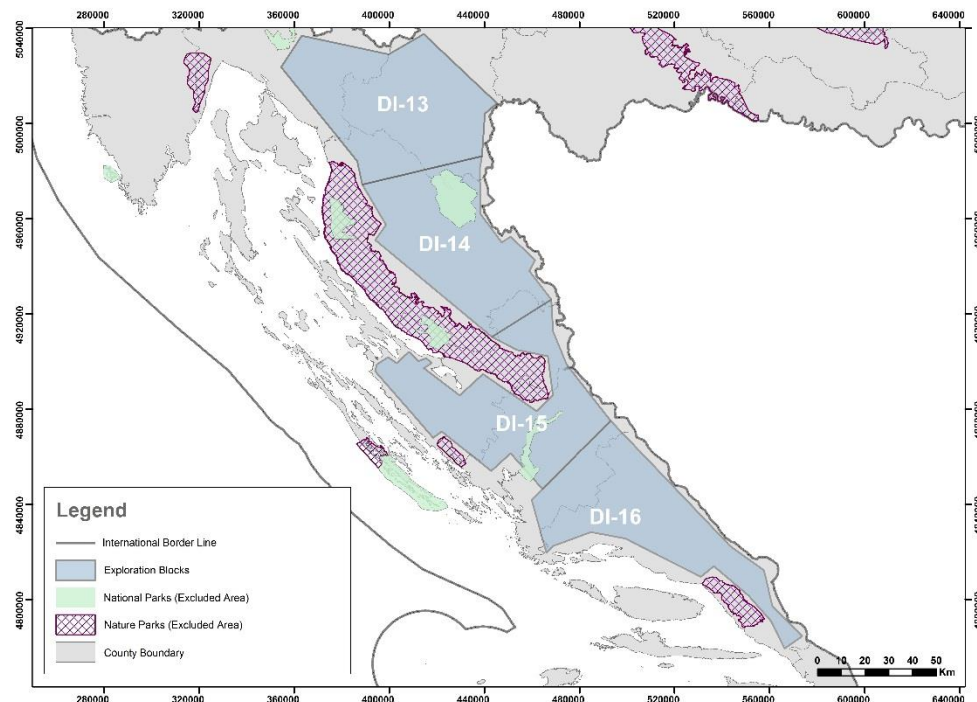
37 Enevaluated Oil and Gas Shows



ID	Well Name	HC Type
1	Čamagajevci-2	Significant oil
2	Donji Miholjac-2	Oil shows
3	Koška-2	Significant oil
4	Podravska Slatina-5	Significant oil
5	Čađavica-1	Significant oil and Gas shows
6	Donji Miholjac-3	Gas shows
7	Donji Miholjac-4	Oil and gas shows
8	Koška-1	Oil and gas shows
9	Marjanci-1	Oil and gas shows
10	Podravska Slatina-3	Oil and gas shows
11	Čamagajevci-1 Alfa	Significant oil and Gas shows
12	Podravska Slatina-2	Oil and gas shows
13	Orešac-2	Significant gas
14	Marjanci-3	Significant oil and gas shows
15	Marjanci-4	Significant oil and gas shows
16	Donja Bukovica-1	Gas significant
17	Donja Bukovica-2	Gas significant
18	Orešac-3	Gas significant
19	Obradovci-1	Gas significant
20	Obradovci-3	Gas significant
21	Lončaruša-1 Alfa	Gas significant
23	Kopčevac-1	Significant oil
24	Duga Greda-1	Gas shows
25	Posavski Bregi-2	Gas shows
26	Duga Greda-2	Significant gas and oil shows
27	Gojlo-2 Istok Alfa	Oil and gas shows
28	Banova Jaruga-3	Significant oil and gas shows
32	Ludbreg-4	Oil shows
33	Međimurje-2	Gas shows
34	Međimurje-5	Gas shows
35	Sitnica-2	Oil and gas shows
36	Strmec Podravski-1	Gas shows
37	Hrvatsko Zagorje-1 Alfa	Oil shows

3rd CROATIAN BIDDING ROUND FOR GRANTING LICENCES FOR EXPLORATION AND PRODUCTION OF HYDROCARBONS - DINARIDES AREA

- On January 30 2019 Croatian Government has adopted a Decision on conducting Bidding Procedure for granting Licences for Exploration and Production of Hydrocarbons in the area of Dinarides
- Dinarides area is divided into 4 exploration blocks:
 - Dinaridi-13
 - Dinaridi-14
 - Dinaridi-15
 - Dinaridi-16
- Exploration period consists of first exploration phase (3 years), second one (2 years) and extension could be granted for additional 2×1 year



Exploration blocks are moved aside from coast line, and national parks and nature parks are excluded from them

3rd BIDDING ROUND TIME FRAMEWORK, APPLICATION REQUIREMENTS

Tentative Bidding Round Schedule - DINARIDES	
February 8th 2019	Bidding Round opening
September 10th 2019, 12:00 a.m. local time	End date for submitting bids
December 2019	Indicative deadline for granting licences

Bidders must satisfy:

- Administrative requirements
- Formal requirements
- Legal requirements
- Financial requirements
- Technical requirements
- Health, safety and environment requirements

BIDDER SELECTION CRITERIA

Criteria for exploration blocks DI-13, DI-14, DI-15, DI-16		Mark (up to)	Weight %
First exploration phase (3 years)	2D seismic survey	15	70
	Other activities	85	
	Reprocessing of existing seismic data	5	
	Airborne Gravity and Magnetic	50	
	Other surveys*	30	
Second exploration phase (2 years)	2D seismic survey	70	20
	Other surveys*	10	
	Number and depth of exploration wells	20	
Signature bonus		100	10

EXIT OPTION

EXPLORATION PERIOD – DURATION OF EXPLOATION PHASES

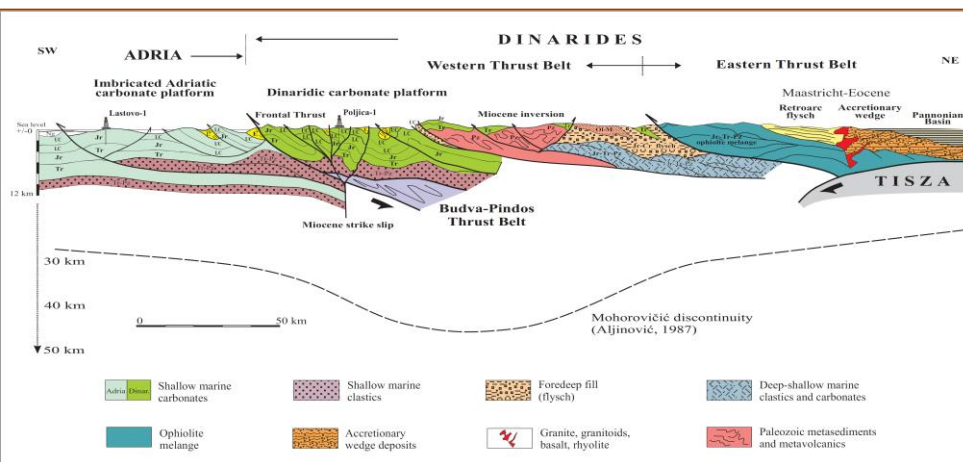
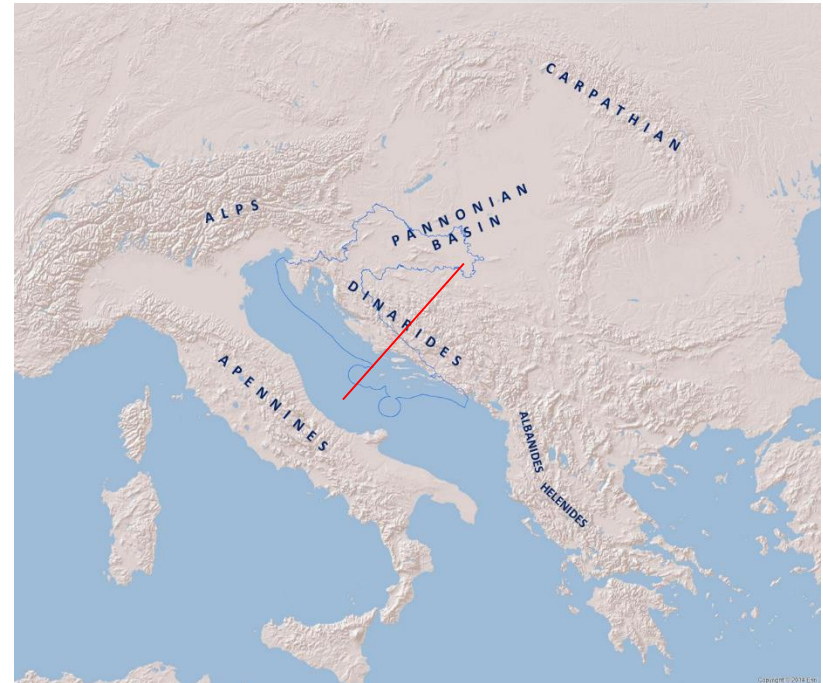
PHASE I	PHASE II
3 years	2 years
(commencing on the effective date of PSA)	(immediately following Phase I)
Investor have 2 options: 1. to proceed to Phase II 2. EXIT OPTION – right to relinquish the entire exploration block without further obligation in respect of the minimum work obligation for the subsequent exploration phase of the exploration period	Investor have 2 options: 1. to enter Production period 2. EXIT OPTION – right to relinquish the remaining portion of the exploration block, provided that he has fulfilled his minimum work obligation for relevant phase

The exploration period can be extended twice for a further period of one (1) year

GEOLOGICAL SETTINGS - DINARIDES

The Dinarides are a wide NW-SE fold-and-thrust belt stretching from southwestern Slovenia to Montenegro along the Adriatic coast of Croatia and inland.

The Dinarides, part of Alpine orogenic system, formed as a consequence of subduction and collision processes in the border zone between Europe and Adria tectonic plates.



PETROELUM SYSTEM

Source Rocks

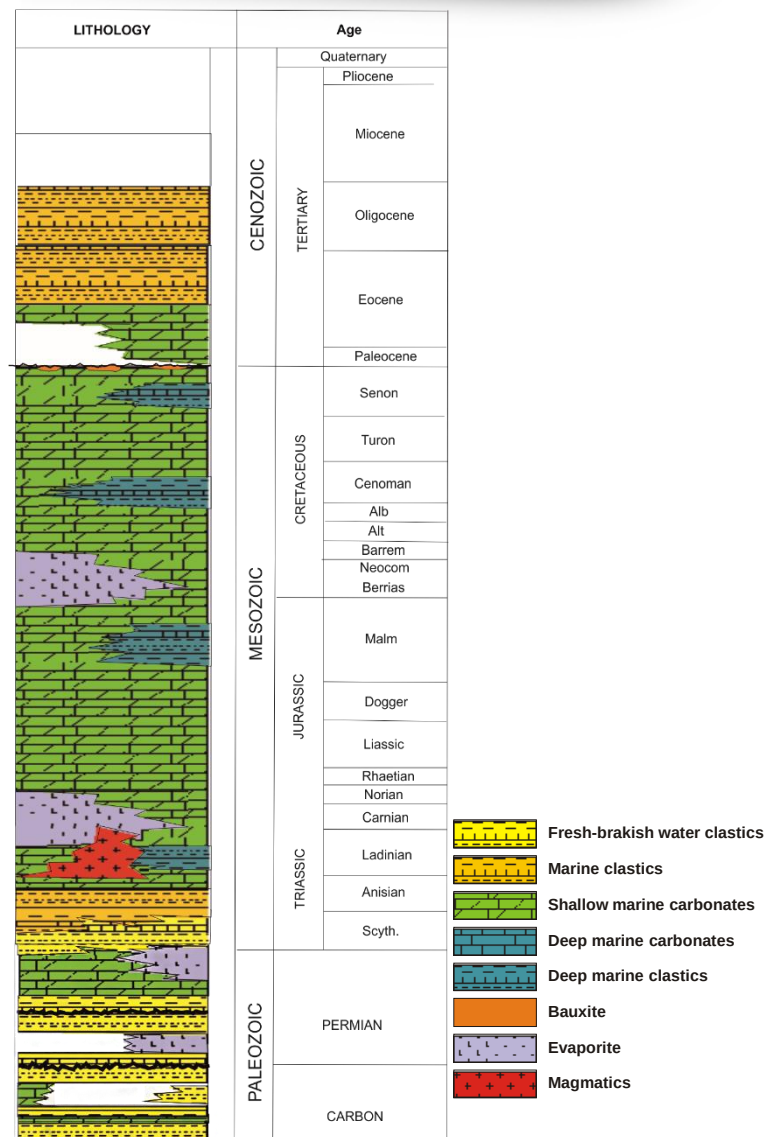
- **Carboniferous and Permian carbonates and clastics**
TOC 0,61-15%, type III and IV kerogen, thermal maturity at the end of peak gas or overmature
- **Middle Triassic deep anoxic lagoons**
Lower to mid mature stage of petroleum generation
- **Ladinian and Carnian carbonates and clastics**
TOC up to 8%, type II kerogen in the late to postmature stage for oil generation
- **Jurassic limestones (Lemes facies)**
TOC 0,3-27%, type I and II kerogen, *excellent source potential*, oil window prior to uplift and thrusting

Reservoir Rocks

- **Late Triassic, Middle and Late Jurassic, Early Cretaceous,**
- **Late Cretaceous - Paleogene**
Various type of shallow platform carbonates with primary, secondary and fractured porosity
- **Late Paleozoic and Early and Middle Triassic**
Siliciclastics

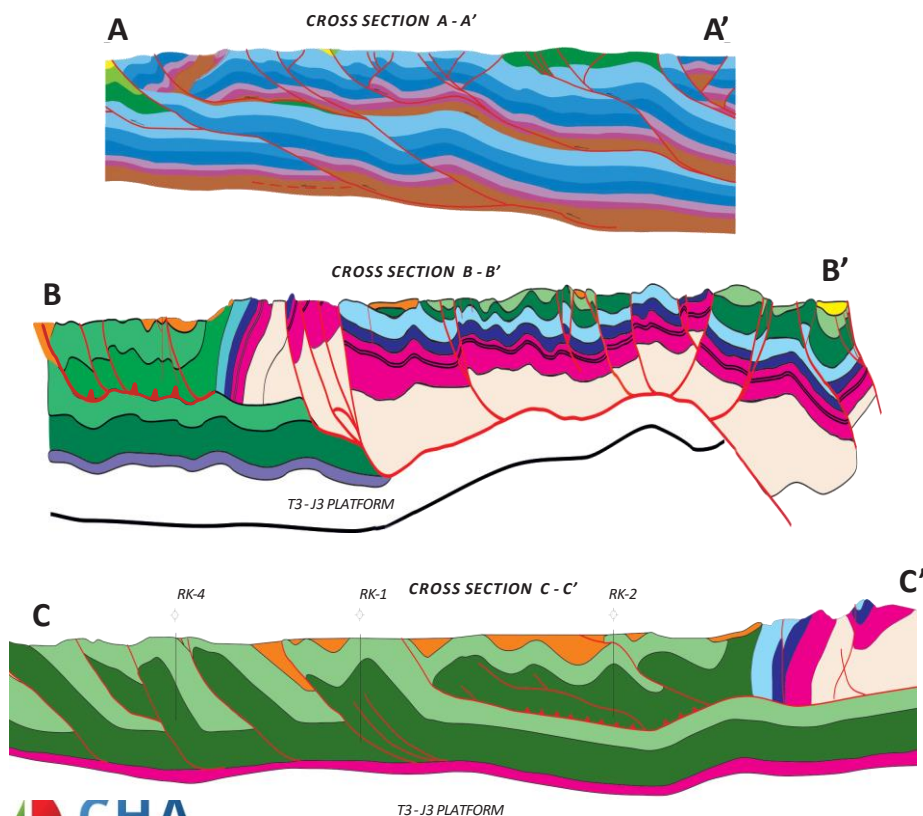
Seals

- Evaporites attributed to Late Permian, Late Jurassic and Early Cretaceous
- Basinal and anoxic Shales/Platy Limestones attributed to Upper Jurassic (Lemes facies) and Lower and Upper Cretaceous
- Tertiary clastic (Flysh and Promina beds), Eocene - Miocene



COMPLEX TECTONIC IN DINARIDES

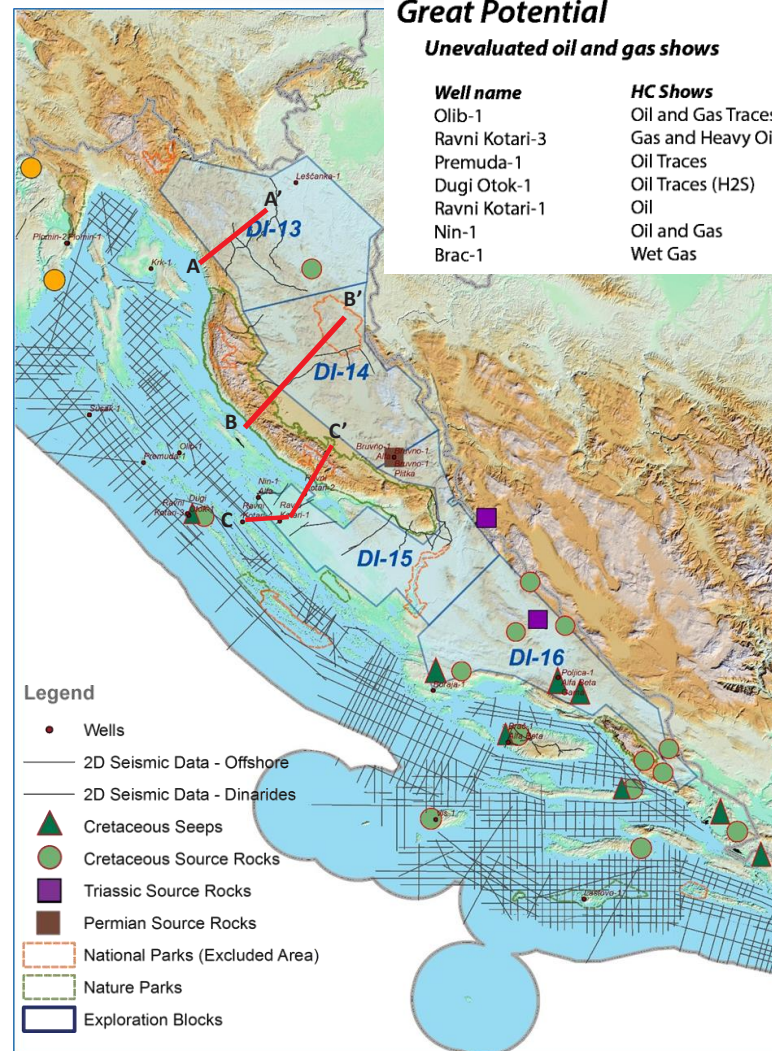
Geological cross-sections through the Dinarides showing sedimentary cover with significant amounts of contractional displacements



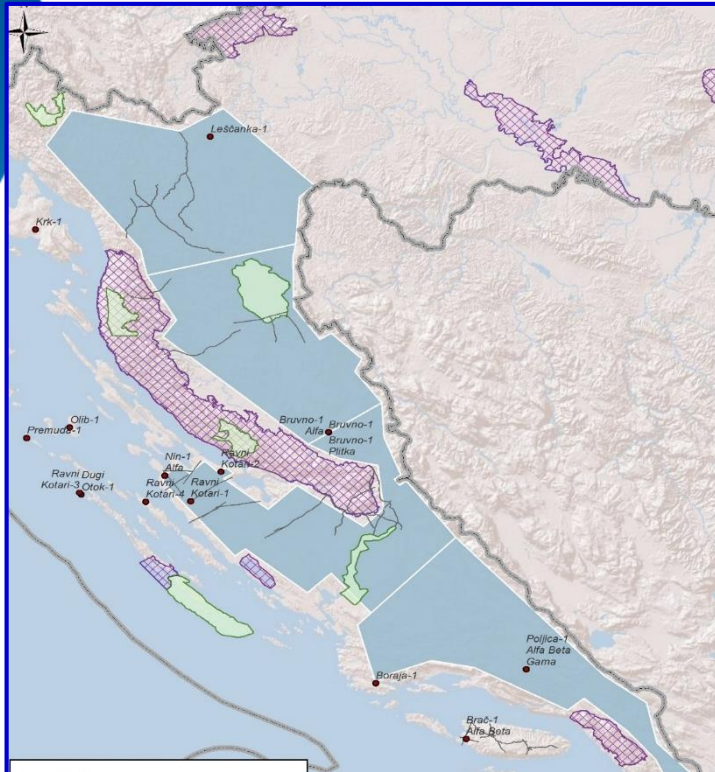
Great Potential

Unevaluated oil and gas shows

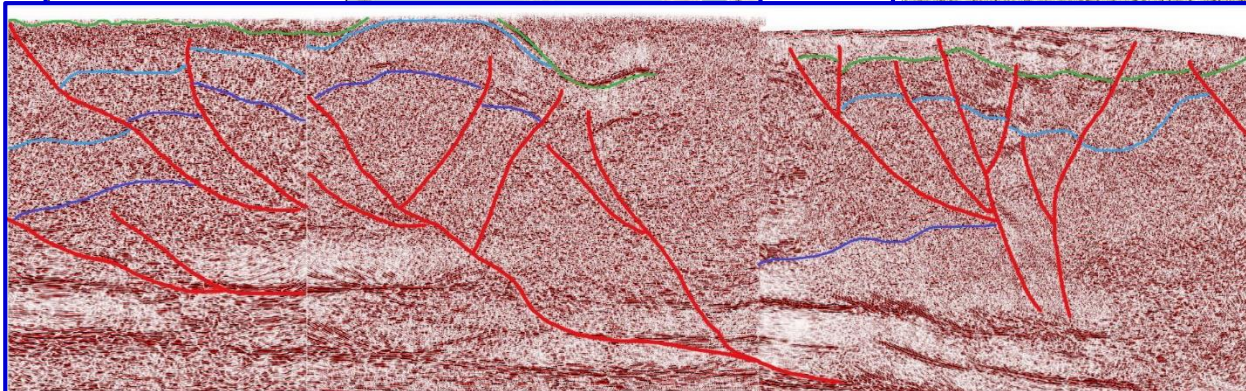
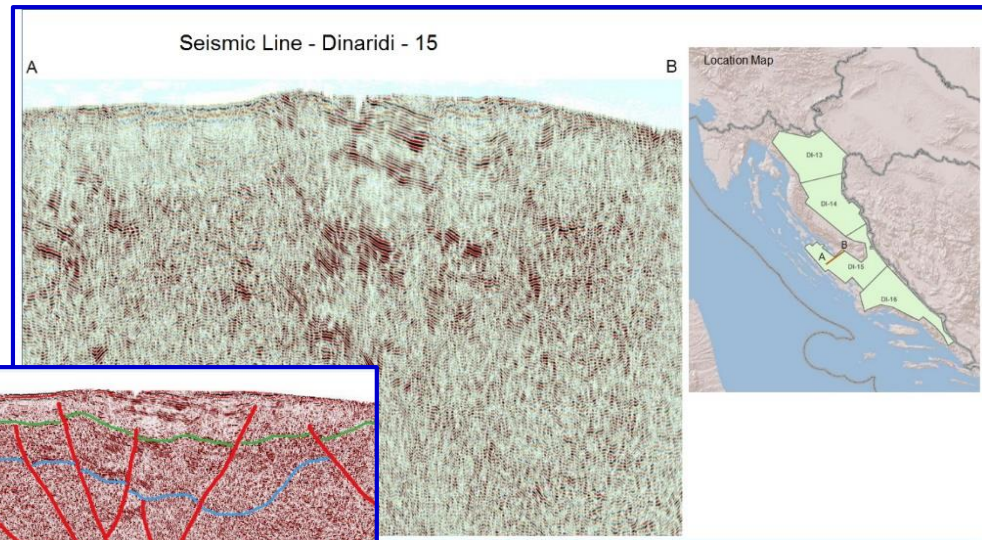
Well name	HC Shows
Olib-1	Oil and Gas Traces
Ravni Kotari-3	Gas and Heavy Oil
Premuda-1	Oil Traces
Dugi Otok-1	Oil Traces (H2S)
Ravni Kotari-1	Oil
Nin-1	Oil and Gas
Brac-1	Wet Gas



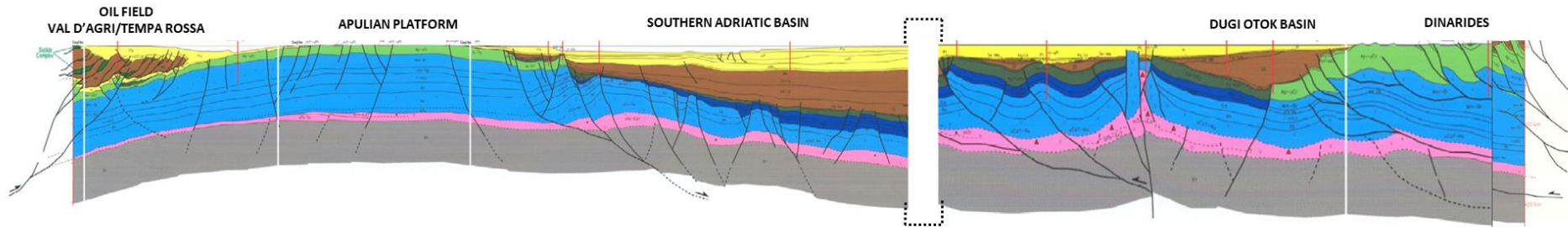
DINARIDES – EXPLORATION HISTORY



- Petroleum exploration in the Dinarides has been carried out from 60' through 80' of the last century
- 4 exploration blocks, with total acreage 12.126 km², contain the following data:
 - 9 wells
 - 441,86 km of 2D legacy seismic data (in stck/mig format and raw data)

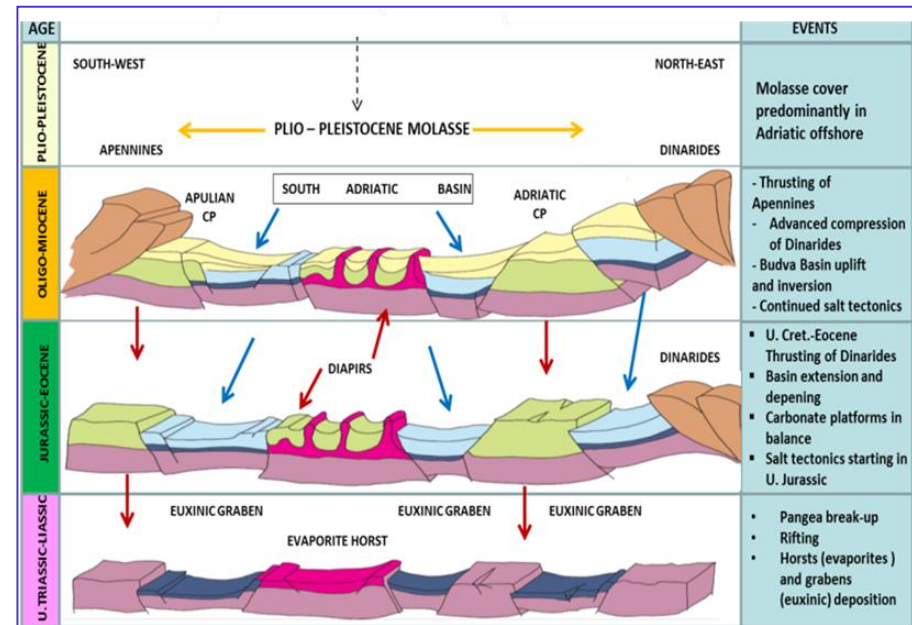


COMPARISON TO APPENNINES



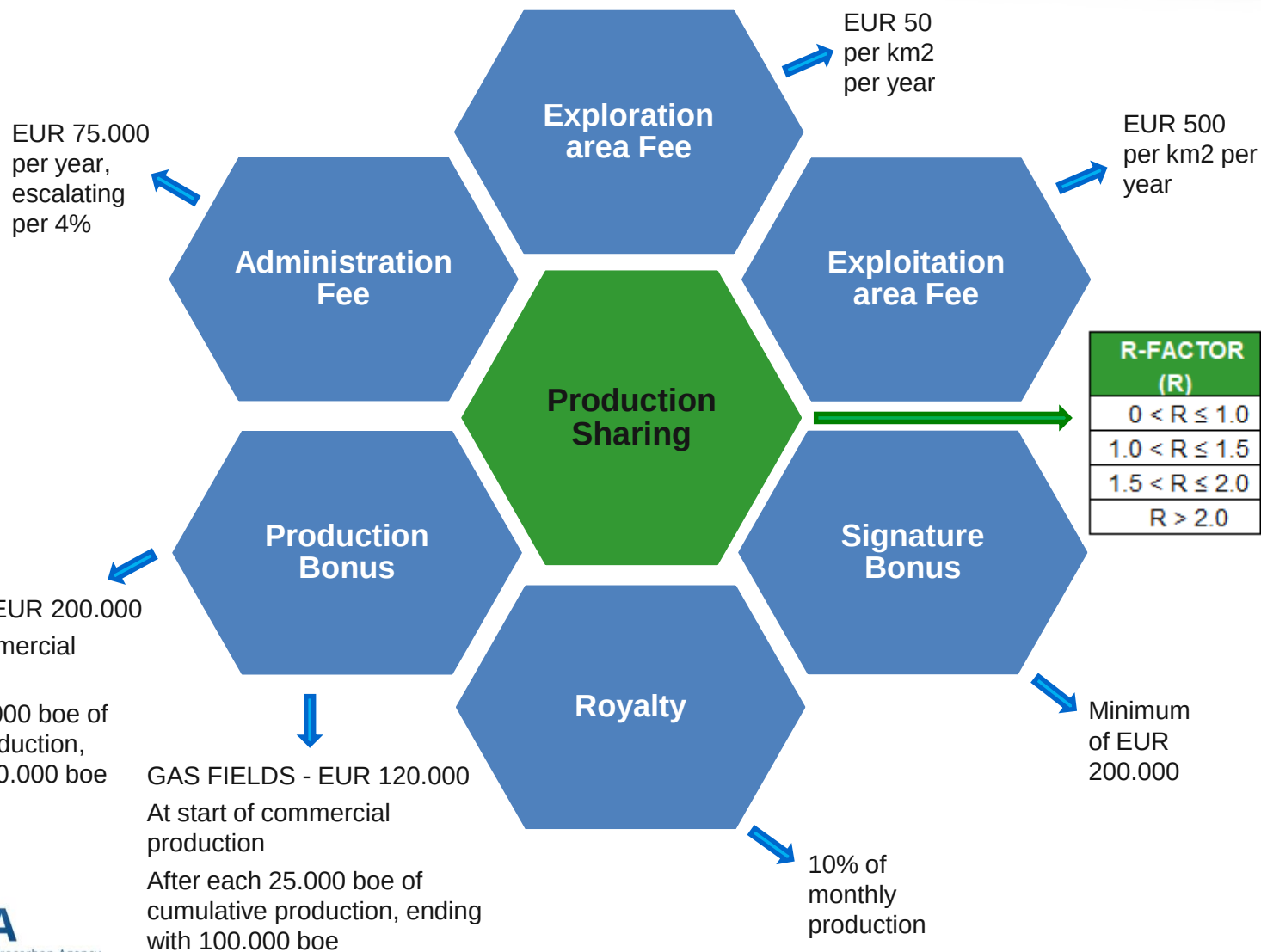
Source: modified from JPG, 38/3, 2015

- Val 'Agri is one of the three largest Italian oil accumulation
- Val d'Agri was deposited during Mesozoic crustal extension and are mainly oil-prone. Hydrocarbon occurrences associated with this source are usually found in complex carbonate structures along the Apennines thrust-and-fold belt and in the foreland. Oil is Cretaceous origin
- The same complex carbonate structures can be found in Dinaridic area. Isotopic analyses of several oil seeps in Dinaric area appear similar to Val d'Agri oils



The Dinarides and Apennines have similar depositional histories

FISCAL TERMS MODEL





THANK YOU FOR YOUR ATTENTION