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"We expect a recovery in our industry. Inside the 300 km circle around Zagreb there will be a production of one million cars per year until 2012. For this reason we are making contacts and establishing cooperation with companies in a country that is exactly in the middle of that huge anticipated production."

Mr. Hubert Hödl, Vice President Marketing & Business Development, Magna International Inc.







# 1.

# CROATIAN AUTOMOTIVE INDUSTRY

1.1.

Tradition, Quality-engineering, Well-known Customers

1.2.

Industry Track Records

1.3.

Industry Structure

1.4.

Growing Interest for Cooperation From Big Automotive Suppliers

# **1.1.** Tradition, Quality-enginnering, Well-known Customers

Automotive components production in Croatia developed as a part of the automotive vehicle production in ex-Yugoslavia (Zagreb Bus Factory in Croatia, IMV (Renault) and Maribor Truck Factory (TAM) in Slovenia, Zastava and Car Factory Priboj (FAP) in Serbia, and TAS (Volkswagen) in Bosnia). It's development was based on the expertise and a strong tradition in relating sectors such as metal processing, welding, plastics, construction and agricultural machinery building. Croatian automotive components companies have a strong tradition in high precision and zero defect tolerance in manufacturing and their main advantage is the excellent quality level of their products. Most of them have both general standards like ISO 9001 and industry specific standards such as TS 16949.

Beside groups of companies in Zagreb, Nova Gradiška, Slavonski Brod and Split with a long experience in this industry, recently there have also been positive examples of several new local companies that achieved complete integration into international chains of part suppliers for world well-known car producers (PSA, GM, Fiat, BMW, Audi, Ford, Renault, Toyota, Volvo, Daimler Chrysler, etc.). This is emblematic of Croatia's entrepreneurial culture and marketing mindset, as well as the availability of locally produced management talent and the underlying competitiveness of cost/quality/engineering skills combination in certain niches of the automotive components industry.

"Croatian component suppliers seem well positioned to respond to the challenge of strengthening collaboration with their customers. Many have successfully developed a new product line or service, or upgraded existing ones in the past three years. The use of AutoCAD and other software for the design and development of components is relatively widespread compared with the situation in other Western Balkan economies. Based on the results of the RCS and company interviews, many Croatian part suppliers already collaborate with their customers in areas that require a deep, stable and medium- to long-term business relation, such as product development, product design and production planning. They do so at a level which remains virtually unmatched elsewhere in the region. All these elements point to the existence of relatively deep and strong relationship between local suppliers and international customers."

OECD, Recommendation for Regional Investment Strategy, 2009.

# **1.2.** Industry Track Records

#### Production of Motor Vehicles, Trailers and Automotive Parts - Total Income

	2002	2003	2004	2005	2006	2007
Total income in EUR (millions)	143.8	171.5	186.0	201.0	227.0	260.0
% change	67%	19%	9%	8%	13%	15%

Source: Croatian Chamber of Commerce (Exchange rate EUR/HRK= 7.3)

Croatian automotive parts producers have proven their high standards and quality as they deliver products to some of the most known upper-market car producers such as Bentley, Ferrari, Mercedes, Alfa Romeo, McLaren, Lamborghini and Aston Martin.

#### Production of Motor Vehicles, Trailers and Automotive Parts - Key Figures

	2004	2005	
Number of companies	60	67	
Number of employees	3.041	3.135	
Total income in EUR (millions)	186	201	
% change		8%	
Investments in EUR (millions)	12	23	
Total export in EUR (millions)	94	112	
Total export/total income ratio	51%	56%	

Source: Croatian Chamber of Commerce (Exchange rate EUR/HRK= 7.3)

The statistical data comprises of only the companies whose registered business is the automotive parts production and does not comprise others that work on the same market, and are registered for, e.g., metal industry

Total income of the Croatian automotive industry has shown double digit growth rates.

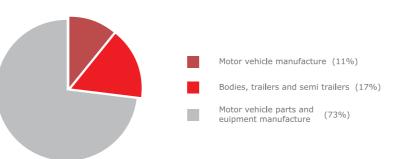
2007
74
3.565
260
15%
17
157
60%

Steady growth of export/ income ratio shows the Croatian automotive producers ability to expand in international markets.

# **1.3.** Industry Structure

Production of motor vehicle parts and equipment manufacture is predominant

#### Production of Motor Vehicles, Trailers and Automotive Parts in 2007 (structure of total revenues)



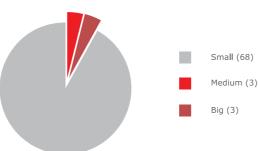
Source: Croatian Chamber of Commerce, 2007

#### 1.3.1. Small But Croative Companies

In 2007 there were 74 vehicle parts production market players. 68 of them were small companies: mostly small enterprises specialized in metal processing, plastic processing and electronic parts production. Small enterprise structure enables higher flexibility, better responsiveness to client's needs, possibility to enter market niches and adapt to new products and technologies.

Croatian spare parts manufacturers deliver more complex and high value added products (instead of competing in mass production like car assembly) which requires higher technical skills, innovation, flexibility and design.

#### Number of Automotive Parts Producers in 2007



#### **Motor Vehicle Parts and Accessories Export**

CN Code	2004	2005	2006
Chassis fitted with engines, for motor vehicles	164	593	1 474
Bodies for the motor vehicles	19 672	47 333	7 935
Parts and accessories of the Motor vehicle (thousands)	91 122	115 397	111 411
Total (thousands)	91 142	115 445	111 421
Indices	139.3	126.7	96.5

Croatian automotive producers are increasing their presence in the global market. The average annual Export growth rate is 22.8%

#### Export by Region

Group	Exports 2008 (USD)	%
European Union	163 522 933	91.51
CEFTA	9 485 858	5.31
CIS countries	4 211 573	2.36
Other countries	1 471 476	0.82
Total	178 691 840	100.00

#### **Products Exported**

Bumpers and parts thereof	Suspension systems ar (including shock-absor
Safety seat belts	Radiators and parts the
Other parts and accessories of bodies (including cabs)	Silencers (mufflers) an parts thereof
Brakes and servo-brakes; parts thereof	Clutches and parts the
Gear boxes and parts thereof	Steering wheels, steeri boxes; parts thereof
Drive-axles with differential, and non-driving axles; parts thereof	Safety airbags with inf thereof
Road wheels and parts and accessories thereof	Other

Source: Croatian Chamber of Commerce, 2007

2007	2008
882	4 168
132 929	245 921
154 328	178 441
154 462	178 691
138.6	115.7

and parts thereof rbers)

hereof

ind exhaust pipes;

ereof

ring columns and steering

nflater system; parts

Top five export destination countries are Slovenia, France, Germany, Bosnia & Herzegovina and Austria

# **1.4.** Growing Interest For Cooperation From Big Automotive Suppliers

#### MAGNA Croatian Cooperation Day for Automotive Suppliers

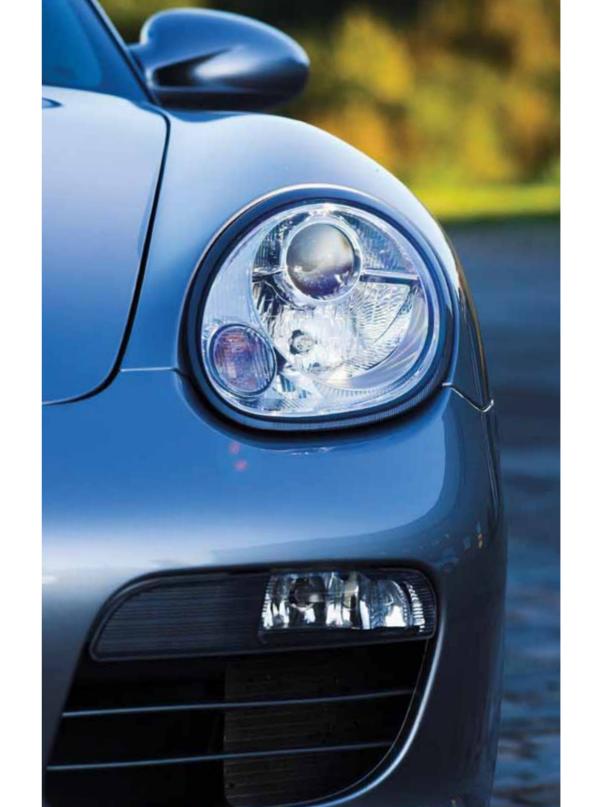
A conference and cooperation meetings were organized in November 2008 by APIU, Magna International Inc. and Croatian Automotive Cluster. More than 40 Croatian companies participated.

"We don't expect to immediately sign a contract with MAGNA, but, since the people from Magna Europe Purchasing Initiative are present, we hope to establish valuable contacts that are crucial for future businesses. We are glad to be one of the seven companies in which Magna has shown major interest. We believe to have competitive quality and prices as we have proved in our cooperation with Bosch, Continental and Zetor."

Damir Ištvanić, owner of Eloda

"We have been working with Magna in Russia and Austria and our customer portfolio includes Renault, Peugeot, Citroen, Ford, BMW, Opel and GM. We supply them with finished products based on the plastic and thermoplastic materials processing for the interior and the exterior of cars. Now we are expecting an expansion in our cooperation with Magna, especially on the Russian market. We are trying to respond to the current crisis with flexibility of prices and the use of new technologies."

Boris Mišić, AD Plastik Program Manager



# 2.

# INDUSTRY PLAYERS

2.1. Automotive Suppliers in Croatia

> 2.2. Foreign Players in Croatia



#### 6. P.P.C Buzet d.o.o. Buzet

#### (Cimos group)

Produces engine parts,

#### circuits, gearbox parts,

- break parts
- Around 350 employees

#### 7. SAS STROJOGRADNJA d.o.o. Zadar

 Produces specialized machinery for the autoindustry

#### 8. SELK d.d. Kutina

- Processes ceramic filters,
- resonators, piezo actuators, and multilayer capacitors
- Around 1500 employees

#### **9. UNIDAL** d.o.o.

#### Vinkovci-Lapovci

- · Produces parts for gearboxes and various undercarriage bearings
- Around 120 employees

# 10. GUMARA ČAVIĆ d.d.

#### Zagreb

- Produces specialized rubber products
- Around 60 employees

#### **11. METALNI LIJEV TCG**

d.o.o. Benkovac

- Produces cast aluminium engine bearings, pumps, wiper bearings, ABS
- casings... Around 270 employees

# 12. MAZIVA-ZAGREB d.o.o.

#### Zagreb

- Produces grease, lubricants and similar products
- Around 340 employees

#### 13. TEHNOMETAL Vrbovec

- Produces spare parts
- Around 20 employees

- Produces windshields and other glass parts
- Around 300 employees

- Produces electromechanical devices, switches, hydro switches...
- Around 60 employees

### 16. HITTNER d.o.o. Bjelovar

- Produces braces, hinges, gears, gearboxes...
  - Around 70 employees

- Produces aluminium parts
- Around 100 employees

### 18. FEROIMPEX automobilska

industrija d.o.o. Bregana

- for bearings
- Around 220 employees

### 19. Končar - Alati d.d.

- Produces tools for tin processing and casts
- for pressure moulding
- Around 80 employees

### 20. TUP d.d. Dubrovnik

#### 14. LIPIK GLAS d.d. Lipik

#### 15. ELODA d.o.o. Zagreb

#### 17. IVANAL d.o.o. Lozovac

for anti-vibration support

Produces rings and casings

 Produces brushes for motor vehicles: metal, metal/plastic, graphitic; and metal/graphitic products; brushes for electromotors and alternators

#### 21. ESCO d.o.o. Bjelovar

- Produces springs
- 96 employees

#### 22. POLIM, Sveti Križ Začretje

- Produces plastic cell phone holders
- 6 employees

#### 23. DALIT d.d. Daruvar

- Produces plastic cell phone holders
- Around 350 employees

#### 24. MUNJA d.d. Zagreb

- Produces batteries
- Around 100 employees

# 25. HARBURG-FREUDENBERGER d.o.o.

#### Belišće

- An industry leader in the hydraulic rubber press machinery production
- Produces hydraulic presses for the production of tires
- Around 400 employees

#### 26. BSI d.o.o. Zadar

- Does counceling, planning, calculation for welding in the automotive industry
- Makes 3D projects in CAD programs
- 6 employees

#### 27. HSTEC d.d. Zadar

- Designs and produces high-speed precision electromotors
- Around 40 employees

# 2.1. Automotive Suppliers in Croatia

#### Turnover Structure by Countries and Clients - 2008

#### AD PLASTIK

Total turnover in 1990: EUR 78 million

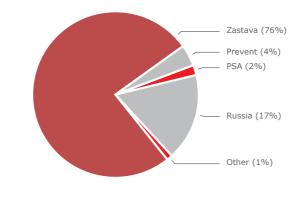
Total turnover in 2008: EUR 92 million AD Plastik d.d. is a company engaged in the manufacture of plastic products, mainly for the automotive industry. Its car products are divided into two groups: interior products, comprised of instrument boards, roofs, door paneling, panel pockets, thermally formed carpets, central console, backseat shelf, column paneling, steering column paneling, window handles, door handles, arm rests, hand brake paneling, ashtrays, ceiling light fixtures, and roof handles, and exterior products, comprised of front and back painted bumpers, fog lights fixtures and covers, decorative profiles, front air intake, fender lining and fuel tank lining.

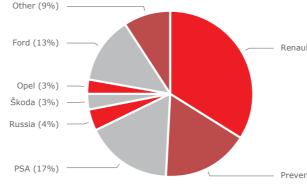
The Company also offers other plastic products, including household products, packaging materials, injection and extruded products, products for the electric industry, seats for stadiums and garden products. It has three subsidiaries, in Russia, Slovenia and Romania.

Its customers include Revoz Novo Mesto, Volkswagen, BMW, Renault, Peugeot, Citroen, Ford, Opel, SM, and many others.

- 1000 employees
- More than 90% of all production is exported
- Total income: 92 million EUR (2008)
- Own Product development and design
- Factories in Russia, Romania and Slovenia
- Certificates: ISO 9001, ISO TS 16949, ISO 14001, Q1

#### Turnover Structure by Countries and Clients - 1990





#### ELODA

A supplier of hydraulic brake light switches – hydrau mechanical, oil pressure switches, radiator fan swi sensors, reverse light switches, push buttons.

- 50 Employees
- More than 95% of all production is exported
- 78% EU customers
- Own Product development, testing facilities
- Certificates: : ISO 9001:2000, ISO/TS 16949:2002, ISO 14001:200
- Main clients: Bosch, WABCO, Herth+Buss, Continental, Teves, Zetor, Pro car, FAE

lt-Revoz (34%)
nt VW (17%)
ulic, pneumatic and itches, temperature
)4 , Tractors, Beru,

#### AVL - AST

AVL is the world's largest privately owned company for development, simulation and testing technology of powertrains (combustion engines, transmissions, hybrids, electric drive, batteries and software) for passenger cars, trucks and large engines.

Croatia is the center for software development (simulation software and automation software for test beds) as well as an active partner in projects for automotive OEM-s (Daimler, Audi, PSA, Renault, Suzuki, Nissan, Toyota...) contributing in the area of computer simulations of complex physical processes in engines and powertrains.

- Founded in 1996
- 80 employees, mostly high qualified engineers
- 100% of all products is exported
- Turnover is 3.1 million EUR (2008)
- Software development and advanced numerical simulations (FEM, MBS, CFD)

#### DIV

DIV group has more than 120 years of tradition. Currently it is one of the leading screw production factories in Europe. It is present in six countries, and has more than 750 employees.

Company headquarters are in Samobor, along with a production facility specialized in hot and cold forging methods. Its largest production facility is in Knin.

The company is constantly aiming to grow and utilize newest technologies.

#### HSTEC

A company founded in 1997 develops, designs, and produces precision high-speed electromotors. It develops various high precision techniques for engineering, design and automatization of specialized autoindustry production machinery.

HSTEC has developed a vast number of electromotors that power working cylinders on auto-part processing machinery, along with numerous modern components for automatic auto-part processing systems.

HSTEC is a licensed user of AAB robotic systems.

# 2.2. Foreign Players in Croatia

Owing to the recent trend that saw the biggest autor the world investing in automotive vehicle production in Europe, Croatia is witnessing a growing interest of big mu on its territory. The Croatian Government has recognized started many initiatives in order to support it.

#### EPCOS

The biggest European and the second biggest world dev of passive electronic. Their Croatian company SELK is a of Piezo Actors using nanotechnology.

- 72 mil. EUR investment
- 1.400 employees
- 16,3 mil. EUR/year turnover

#### What attracted EPCOS to invest:

- Quality of production and production cycle organization
- Quality of workforce
- Modern machinery (7,5 mil EUR investment by SELK)

#### **BOXMARK LEATHER**

Austrian company, worldwide leading supplier of high surface leather and finished leather components.

- 50 mil. EUR investment
- 3.000 employees
- Clients: Audi, Porsche,...

motive producers in Central and Eastern Iltinationals to invest d this trend and has	
veloper and producer a dominant producer	
quality chrome free	17

#### CIMOS

A joint-venture between the Slovenian CIMOS and the Croatian company P.P.C. BUZET – supplier of engine parts (engine components, break system components, gearshift mechanism components, car body components).

- 650 employees
- Own product development and design
- Certificates: ISO/TS 16949;2002, ISO 14001, OHSAS 18001
- Clients: PSA, HTT, Ford, BMW

Tradition in automotive industry is a guaranty of high quality products, competent workforce and a continuous innovation. High standards of quality are also visible in delivery deadlines and competitive prices.

#### YAZAKI

A global Japanese automotive corporation, manufacturer of Electrical/ Electronic Distribution System (EEDS) with 87 manufacturing operations in 38 countries on six continents. Designs and develops an innovative range of products for automotive industry. In Croatia, the company employs top skill professionals engaged in research and development of electronic parts for vehicles.

- Top design & prototype center in Zagreb
- Certificates: QS-9000, ISO-17025, ISO/TS 16949, ISO 9001
- Clients: DaimlerChrysler, GM, Honda, Toyota and others

#### SAINT JEAN INDUSTRIES

A worldwide established innovative corporation, specialized in the development and manufacturing of high integrity/critical safety aluminum components and sub-assemblies for the automotive, truck, motorcycle and industrial markets.

- Certificates: QS-9000, ISO-17025, ISO/TS 16949, ISO 9001
- Clients: leading European and world's brands: Peugeot, Citroen, Volkswagen, GM, Volvo, Hyundai.
- 118 employees

#### Alstom

A worldwide leader in equipment and services for power generation and rail transport. In Croatia, the company works on design, production and assembling of steam turbines.

- 680 employees
- Design and product development in Karlovac
- Certificates: QS-9000, ISO-17025, ISO/TS 16949

#### Eurozappa

Italian company, one of the world's largest companies manufacturing hand tools and components for machinery and automotive industry. TANG, their company in Croatia, is involved in forging products and tools, machine and vehicle parts and components.

- 1,5 million EUR Investment
- 100 employees



# 3.

# INNOVATIVE PRODUCTS AND INVESTMENT OPPORTUNITIES

3.1.

Automotive Components Industry

3.2.

Concepts and Innovatove Products

# 3.1. Automotive Components Industry

#### Reduce your costs while maintaining quality

Short distance to markets and car production plants in Western and Eastern Europe

- Transportation and storage costs reduction (potential in logistics)
- · Possibility of just in time delivery thanks to modern transport infrastructure
- Croatia's proximity to strong auto parts manufacturers in the region (Austria, Italy, Slovakia...)
- Tremendous shipping costs savings possible, especially for Asian and Middle east manufacturers (Sea ports of Rijeka and Ploče)
- Motivated, gualified and productive workforce at competitive costs
- Quality that meets European standards:
- · Local companies achieved complete integration into the international chain of part suppliers for world well-known car producers
- · Certificates + export figures (growth and ratio) prove quality and growth potential

#### Strenghten your business through cooperations in Croatia

Wide range of automotive suppliers from Tier1 to Tier3 with development potential and free capacity available.

Small supplier structure allows flexibility and fast reaction to your needs. Use local and regional expertise from Croatian manufacturers.

#### Expand in growing markets of SEE

Take advantage of the Free Trade Agreement between Croatia and EU/CEFFA Use Croatia as your business platform to expand in the region of SEE (sales & marketing).

Possibility to expand in Croatian traditional markets (ex-Yugoslavian countries, CEFTA, Russia).

# Your Way to Success in Croatia:

- Greenfield / Brownfield investments / Cooperation (trade, joint-ventures)
- Investments in new production processes ("New Equipment")
- · Find quality suppliers in Croatia and build your network with Croatian government and local institutions
- Use our expertise and the expertise of local managers for a successful expansion in regional SEE . . markets
- Use the Croatian investment incentives and the favorable taxation of company profits and income from capital

The Croatian automotive industry has a strong basis and potential for future development of higher value added niche segments such as automotive components industry, design and R&D.

Central and Eastern Europe have become major sales markets for the automotive industry. Roland Berger forecasts 6.9% growth until 2010

## 3.2. Concepts and Innovative Products



by Igor Jurić

#### ELECTRIC CAR

Thanks to their extensive experience in vehicle production and huge R&D efforts made in several years DOK-ING will soon include a new creation in their range of products - an electrical engine city car. The whole project has been thought of and developed exclusively by this company.

Electric car advantages are lesser pollution and cheaper fuel as well as a rather long usage without any need for servicing. They are especially important for the improvement of city driving: quiet operation, exhaust gas elimination and easier steering. This auto industry branch will continue developing alongside the new generation batteries.

The DOK-ING's three seats car has been designed primarily as an ecologically acceptable vehicle to be used for city driving. The warrant period for the car, excluding the battery, is 5 years and will cost around 10.000 EUR. The first test drive is expected in 2010.

The start of production requires tremendous costs and the company is currently searching for investors.

#### BATTERY

A choice between two types of batteries will be possible: a lead battery with lesser autonomy and a new generation lithium-iron-phosphate (LiFeP04) battery that is light, ecologically acceptable and non-combustible. Following two hours charging, the car will have 250 km driving autonomy. It will also be equipped with the regenerative brake system enabling it to recharge during braking.

#### MOTOR

Two permanent 50 kW/65 HP new generation electro motors, controlled by the DOK-ING manufactured electronics and produced by an another Croatian company Tema, will be mounted on front wheels. 300 Nm torque will guarantee exceptional acceleration while the maximum 130 km/h as optimal speed will allow effortless driving over longer distances on the motorways.

#### **Expected Features** (final features may vary)

- 2-hour battery charging
- 250 km autonomy
- Recharging during breaking
- 130 km/h as optimal speed maximum speed
- 5-year warranty
- A roadster planned

### DESIGN

Te industrial designer Igor Jurić, with a long experience working for Opel, Porsche and Mercedes, signs the car design and is exclusively responsible for the car image.

The car will have modern rounded lines giving it a sporty look, while the rear lights will be rather unusually X shaped. The roof will be entirely covered in glass. The interior still hasn't been completely defined, but an innovation will certainly be the steering mechanism that can be moved from left to right and even kept in the middle. The seats will provide for a touch of glamour.







# 4.

# AC CROATIA AUTOCLUSTER



#### Branko Mihalić, B.Sc.M.E. Cluster Manager

Telephone: +385 1 4897 574 Mobile: +385 91 4897 574 Fax: +385 1 4897 581 e-mail: branko.mihalic@hup.hr

- Founded in 2006 with headquarters in Zagreb
- Cluster members producing, engineering & developing companies in the automotive sector
- Cluster's Total Employment: 2.000+ Employees
- Cluster's Total Turnover 2007: 105 Mio. EUR
- Exports 90% to the Western European countries/regions

#### VISON

Croatian Automotive Cluster, as a supplier and partner of the global automotive industry, will offer complete and innovative solutions to the development of products and services of high added value, using own professionalism, specialization, multidisciplinarity and flexibility and by taking into account wishes and needs of the customers as well as the current technological and ecological trends.

### STRATEGIC GOALS

- Market Research
- Development of new products and services
- Cluster's Total Employment: 2.000+ Employees
- Cluster's Total Turnover 2007: 105 Mio. EUR

Croatian Employers' Associatian National Center for Clusters Pavla Hatza 12, HR-10000 Zagreb, Croatia

> www.klaster.hup.hr www.hup.hr www.industrija.hup.hr





# TRADE AND INVESTMENT PROMOTION AGENCY

National Agency of the Republic of Croatia Central point of contact for investors and exporters

#### At Your Disposal

Information about economic and regulative issues Visits and selection of industrial sites (according to your needs) Database of available industrial land Database of Croatian automotive suppliers and cooperation candidates Organization of matchmaking conferences

#### Consulting Offered

Before, during and after the completion of your project Fast proceeding of all necessary permits Support in investment incentives application Contact with Croatian automotive supplier Take advantage of our network





You may contact us directly or through the Croatian Embassy in your country

Address: Andrije Hebranga 34/ 10000 Zagreb / Croatia Telephone: +385 (0)1 4866 000, +385 (0)1 4866 001 Fax: +385 (0)1 4866 009 e-mail: info@croinvest.org www.croinvest.org

The Croatian Trade and Investment Promotion Agency works in accordance with the HRN EN **ISO 9001:2002 standard** 

A. HEBRANGA 34 / 10000 ZAGREB / CROATIA / TEL + 385 (0)1 4866 000 + 385 (0)1 4866 001 / FAX + 385 (0)1 4866 009 / INFO@CROINVEST.ORG / WWW.CROINVEST.ORG