

$$S+M(L)=KI^{16}$$

University  
of Zagreb  
Faculty of  
Chemical  
Engineering and  
Technology

Croatian  
Society of  
Chemical  
Engineers

## XVI Meeting of Young Chemical Engineers

$$S+M(L)=KI^{16}$$

19<sup>th</sup> and 20<sup>th</sup>  
February  
2026

[www.fkit.unizg.hr/smlki](http://www.fkit.unizg.hr/smlki)

# BROCHURE

## Meeting of Young Chemical Engineers

## FOREWORD

On behalf of the Scientific and Organizing Committee, it is a great honour and pleasure to announce and invite you to the **16<sup>th</sup> Meeting of Young Chemical Engineers (SMLKI 2026)**, which will be held at the Faculty of Chemical Engineering and Technology in Zagreb, Republic of Croatia, on February 19<sup>th</sup> and 20<sup>th</sup> 2026. Organized by the Croatian Society of Chemical Engineers and the University of Zagreb Faculty of Chemical Engineering and Technology, this meeting has traditionally been held biennially since 1996.

Through its five sections – *Chemical engineering, Biochemical engineering, Environmental engineering, Materials and products development, and Applied chemistry* – this meeting gathers young scientists from universities, industry, and research institutes from Croatia and abroad to exchange their experiences and knowledge, and to present their valuable results in the field of chemical engineering.

We believe that all participants, plenary and invited lecturers, auspices, and sponsors and many others will recognize the significance of this meeting and its role in the promotion of chemical engineering expertise, and thus support it through active participation.

We sincerely hope that you will positively reply to this invitation.

Chair of the Scientific and Organizing Committee



Assist. Prof. Anita Šalić

## ABOUT THE MEETING

**S+M(L)=KI**

The Meeting of Young Chemical Engineers was first held in 1996, and in 2026, the 16<sup>th</sup> Meeting of Young Chemical Engineers will be organised. SMLKI event is a long-time project of employees

of the Faculty of Chemical Engineering and Technology who traditionally promote chemical engineering discipline and highlight the significance of its continuous development in the Republic of Croatia. The goal of the Meeting is to affirm young experts and our profession as well by presenting the results achieved during undergraduate and graduate studies and in their Bachelor's and Master's theses. Moreover, young scientists will exchange their valuable experiences and achievements gained in industry, academia, and research institutes. In addition to participants from the Republic of Croatia, colleagues from foreign countries such as Germany, Hungary, Slovenia, Bosnia and Herzegovina, Serbia, and the United Kingdom showed considerable interest, which certainly gives the Meeting an international character.

The official languages of the Meeting are Croatian and English.



MEETING OF YOUNG CHEMICAL ENGINEERS CONTINUOUSLY GROWS

Below are graphic representations that clearly illustrate the growing interest among young scientists and the significant expansion of the Meeting since its first edition in 1996, up to 2024.

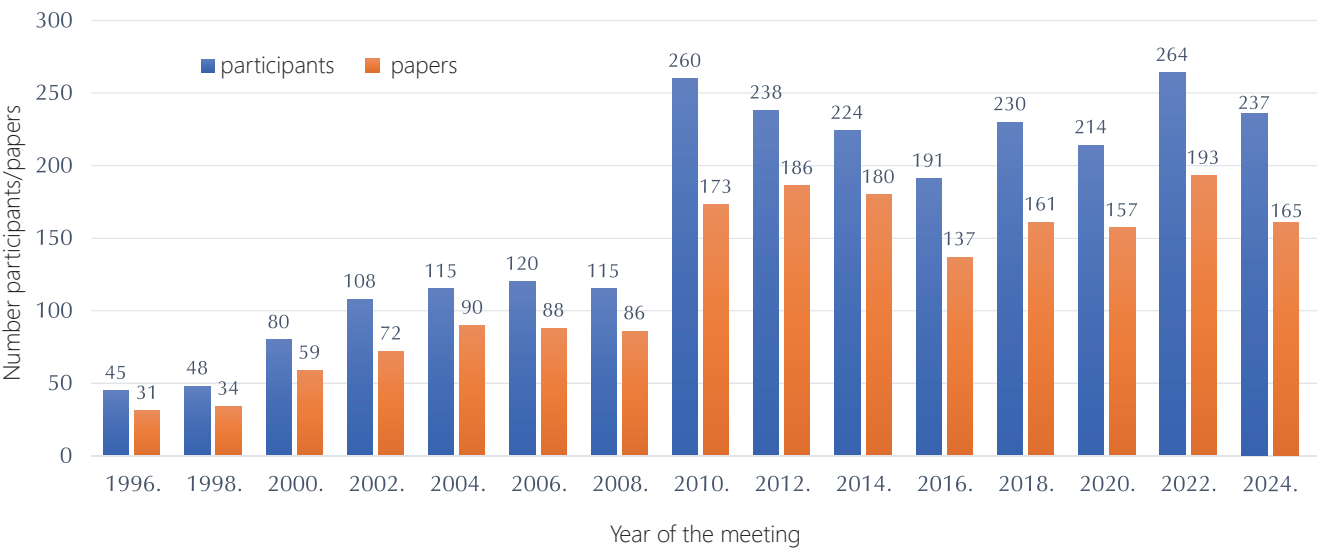


Fig. 1 – The number of presented papers and participants so far

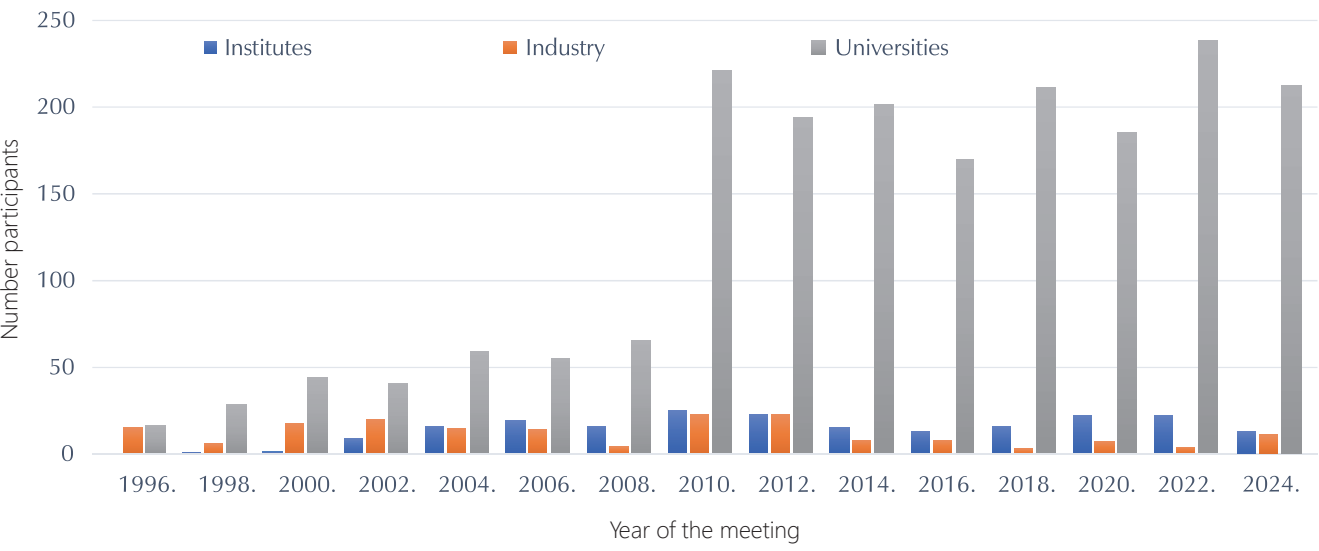


Fig. 2 – The number of presented papers and participants so far

## WHY TO PARTICIPATE AT THE MEETING?

Based on the experience of previous Meetings, the program of the Meeting is expected to be of high quality and a model of productive collaboration between scientists, young researchers and industry experts.

It aims to promote an open and constructive exchange of knowledge, stimulate critical thinking and develop collaborative relationships between participants with different profiles – from undergraduate and postgraduate to experienced researchers and engineers from the field.

### THE MEETING ENABLES:

- high quality interaction between participants through scientific presentations, discussions and informal talks,
- learning about current research and development projects in the field of chemical engineering and related disciplines,
- sharing of experiences and insights into challenges and opportunities in the academic and industrial environment,
- making new acquaintances and professional contacts that may lead to future collaborations and projects.

The participation of young experts is particularly encouraged, as the Meeting provides a space for the first presentation of one's own work, to receive feedback and to strengthen professional self-confidence.

Two days spent in a stimulating and dynamic environment represent a valuable experience that goes beyond formal academic knowledge and contributes to the personal and professional development of each participant.







## LIST OF LECTURERS AND LECTURES FOR THE PERIOD 2014–2024

### 2014

#### *Plenary lectures*

1. **Ante Jukić**, Kemijsko inženjerstvo – izazovi i mogućnosti (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
2. **Bernd Nidetzky**, The sweet side of industrial biotechnology: biotransformations of carbohydrates, small and large (Institute of Biotechnology and Biochemical Engineering, Graz University of Technology).

#### *Invited lectures*

1. **Pär Tufvesson**, PhD, Economic and environmental assessment as tools to guide development of sustainable bioprocesses (Department of Chemical and Biochemical Engineering, Technical University of Denmark)
2. **Krunoslav Žižek**, Granulation – engineering of particles (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
3. **Šimo Kordić**, Svojstva i procesiranje farmaceutskih prahova (Pliva Hrvatska d.o.o., Croatia)
4. **Petra Kotnik**, Supercritical fluid chromatography: fundamentals and applications (Fakulteta za kemijo in kemijsko tehnologijo, Univerza v Mariboru, Slovenia),
5. **Vesna Kučan Polak**, Biogoriva – jučer, danas, sutra (INA Industrija nafte, d.d., Croatia)
6. **Marin Ganjto**, Praćenje utjecaja na okoliš postrojenja za obradu komunalnih otpadnih voda – ključni pokazatelji i iskustva CUPOVZ (Zagrebačke otpadne vode d.o.o., Croatia).

### 2016

#### *Plenary lectures*

1. **Stanislav Kurajica**, Nanoutopija ili nanodistopija (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
2. **Albin Pintar**, Catalytic Processes for the Production of Energy-Rich Gas Mixtures (Kemijski inštitut, Slovenia).

#### *Invited lectures*

1. **Oliver Spadiut**, PhD, Horseradish Peroxidase – from Genome to Protein (Vienna University of Technology, Institute of Chemical Engineering, Research Area Biochemical Engineering, Wien, Austria)
2. **Saman Hosseinpour**, PhD, In-Situ Monitoring of Ultra Slow Oxidation of Copper and Its Alloys Protected by a Self Assembled Monolayer (Department of Molecular Spectroscopy, Max Planck Institute for Polymer Research, Mainz, Germany)
3. **Ernest Meštrović**, PhD, Profil "idealnog" kemijskog inženjera – pogled iz farmaceutske industrije (PLIVA Hrvatska d.o.o., TAPI Istraživanje i razvoj, Zagreb, Croatia)
4. **Darja Pečar**, Reakcija esterifikacije s kiselim katalizatorom u čvrstom stanju (Univerza v Mariboru, Fakulteta za kemijo in kemijsko tehnologijo, Slovenia)
5. **Aleksandra Sander**, Zelena otapala u proizvodnji i pročišćavanju biodizela (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
6. **Krunoslav Užarević**, PhD, Porosity from grinding: rapid, clean and gram-scale synthesis of microporous functional materials *via* mechanochemistry (Ruđer Bošković Institute, Croatia)
7. **Miroslav Žegarac**, PhD, Utjecaj svojstava miješanja na proces kristalizacije prasugrel hidrobromida tokom uvećanja u svrhu poboljšanja filtrabilnosti (PLIVA Hrvatska d.o.o., TAPI Istraživanje i razvoj, Zagreb, Croatia)



## 2018

### *Plenary lectures*

1. **Valerio Causin**, Creating Building Blocks for Composite Materials: Electrospinning (University of Padova, Department of Chemical Sciences, Padova, Italy)
2. **Zvezdana Findrik Blažević**, Biocatalysis in Development of Green Pharmaceutical Processes – An Engineering Approach (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)

### *Invited lectures*

1. **Darja Pečar**, Solid Acid Catalysts – Comparison Study (University of Maribor, Faculty of Chemistry and Chemical Engineering, Maribor, Slovenia)
2. **Martina Petrović-Hunjadi**, Application of Flow Chemistry in Drug Discovery (Fidelta Ltd., Zagreb, Croatia)
3. **Miroslav Slouf**, Preparation of Supertough PLA/PCL Blends by Targeted Optimization of Their Morphology (Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic)
4. **Iris Barbarić**, Procesi Rafinerije nafte Rijeka (INA-industrija nafte d. d., Kostrena, Croatia)
5. **Nenad Bolf**, Kako digitalizacija i umjetna inteligencija mijenjaju kemijsko inženjerstvo (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
6. **Ivana Grčić**, Solarna fotokataliza – Tips & Tricks (University of Zagreb, Faculty of Geotechnical Engineering, Varaždin, Croatia)

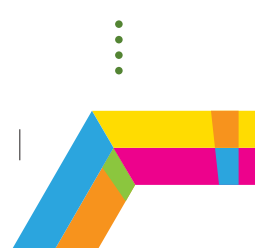
## 2020

### *Plenary lectures*

1. **Jens-Uwe Repke**, Towards Intensified and Sustainable Processes – A Systematic Approach for Identification and Analysis of Plant Design and Operation (Berlin Institute of Technology, Department of Process Dynamics and Operations, Berlin, Germany)
2. **Žarko Olujić**, Reducing Process Industry Energy Demand & Carbon Dioxide Emissions Through Distillation Technology Advances (umirovljeni profesor TU Delft, Nizozemska, i Fakulteta kemijskog inženjerstva i tehnologije, Zagreb, Croatia).

### *Invited lectures*

1. **Blaž Likozar**, How Can (Multi-Scale) Modelling, Simulations and Engineering Help Bio-Refining? (Kemijski Inštitut, Ljubljana, Slovenia),
2. **Thomas Grützner**, Next Generation Separation Units – Research at Ulm University (Ulm University, Ulm, Germany),
3. **Ozren Wittne**, End of the World is Near! (for Batch Processes) (PLIVA Hrvatska d. o. o., TAPI Istraživanje i razvoj, Zagreb, Croatia),
4. **Franjo Jović**, Chemical Reaction Hazards – Story About Process Safety (PLIVA Hrvatska d. o. o., TAPI Istraživanje i razvoj, Zagreb, Croatia),
5. **Jelena Macan**, Keramički materijali iz otopine – prednosti i izazovi (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia),
6. **Irena Škorić**, Dizajn, sinteza i inhibicija kolinesteraza novih oksimskih i amino-derivata (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia).



## 2022

### *Plenary lectures*

1. **Steffen Wagner**, 4<sup>th</sup> Industrial revolution driven by digitalization and digital twin (Siemens AG, Digital Industries, Process Automation, Technology and Innovation, Karlsruhe, Germany)
2. **Ivan Đikić**, Proxodrugs: new therapeutic options for numerous diseases (Institute of Biochemistry II, Goethe University Medical Faculty, Frankfurt/Main, Germany)

### *Invited lectures*

1. **Michaël Tatouliau**, Plasma technology: an innovative tool to engineer chemical reactions (IRCP-UMR8247, Equipe 2PM, Chimie ParisTech-PSL, IPGG, Pariz, France)
2. **Jerome Le Cunff**, Problem solving in the pharmaceutical industry, 3 case studies (Xellia d. o. o, Zagreb, Croatia)
3. **Boris Zimmermann**, Applications of vibrational spectroscopy in microbial biotechnology (Norwegian University of Life Sciences, Faculty of Science and Technology, Ås, Norway)
4. **Jakov Mihaljević**, Engineering, economics or management? What is the most important and your choice? (INA, d. d., Development, Zagreb, Croatia)
5. **Petar Kassal**, Nanoparticle-based conductive inks for inkjet printing of planar electrodes (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
6. **Marija Ćosić**, Influence of ultrasound irradiation in batch crystallizer on nucleation and crystal growth kinetics (University of Split, Faculty of Chemistry and Technology, Split, Croatia)

## 2024

### *Plenary lectures*

1. **Bojan Jerbić**, Umjetna inteligencija – izazov digitalne budućnosti (Sveučilište u Zagrebu Fakultet strojarstva i brodogradnje i Regionalni centar izvrsnosti za robotske tehnologije – CRTA, Zagreb, Croatia)
2. **Sanja Martinez**, The Challenges of Technology Transfer in Corrosion Engineering (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)

### *Invited lectures*

1. **Maša Safundžić Kučuk**, Kako fakultetsko gradivo postaje lijek: pustolovina od knjige do ljekarne (JGL d.d., Rijeka, Croatia)
2. **Ivan Güttler**, Klimatske promjene: sažetak najnovijeg zbirnog izvješća međuvladinog panela o klimatskim promjenama (IPCC) (DHMZ, Zagreb, Croatia)
3. **Primož Jovanović**, En route to sustainable oxygen electrocatalysis: employment of advanced electrochemical methods (Kemijski inštitut, Ljubljana, Slovenia)
4. **Igor Dejanović**, Može li destilacija biti zeleni proces? (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)
5. **Ivana Šoljić Jerbić**, Izazovi u razvoju inovativnih kompleksnih lijekova s produljenim oslobađanjem (Pliva Hrvatska d.o.o., Zagreb, Croatia)
6. **Arijana Filipić**, Novel Technology for Clean Water (Institut za biologiju, Ljubljana, Slovenia)

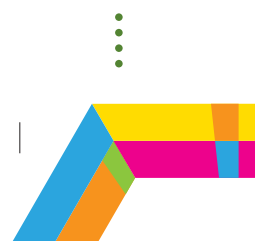
### *Invited lecture by a young laureate*

1. **Katarina Mužina**, Makro uspjesi na nano razini – čari znanstvenog istraživanja (University of Zagreb Faculty of Chemical Engineering and Technology, Croatia)



## OVERVIEW OF PREVIOUS PATRONS, SPONSORS AND DONORS

Year of the Meeting	Patrons	Sponsors	Donors
2002	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association	Gavrilović d.o.o., Petrinja; Herbos d.d., Sisak; Kraš d.d.; Ministarstvo znanosti i tehnologije; Narodne novine; Pan-Pek;; Petrokemija d.d., Kutina; Pliva d.d.; TOZ – tvornica olovaka.	No data
2004	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association	No data	
2006	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association	Ministarstvo znanosti, obrazovanja i športa Republike Hrvatske, Ina d. d.; Istra Cement d.o.o., Pula; Pliva Hrvatska d.o.o.; Podravka d.d., Koprivnica.	Ely Lilly, predstavništvo Zagreb; Ina Maziva Rijeka; IPK Erdutski vinogradi; Jamnica d.d. Zagreb; Pan-Pek d.o.o.; Petrokemija d. d. Kutina; Purex d.o.o. Smolonje; Hrvatska turistička zajednica
2008	University of Zagreb, Croatian Engineering Association	Ministarstvo znanosti, obrazovanja i športa Republike Hrvatske; Pliva Hrvatska d.o.o.; INA d.d.; Hrvatska turistička zajednica; APO.	Belišće d.d.; Ina d.d. Rafinerija nafte Rijeka; Jamnica d.d., Pan-Pek d.o.o.; Petrokemija d.d. Kutina; Purex d.o.o. Smolonje; Turistička zajednica grada Zagreba; KRAŠ prehrambena industrija d.d.
2010	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association	Pliva Hrvatska d.o.o., Turistička zajednica grada Zagreba; Viro – tvornica šećera, Končar institut; Borovo – Gumitrade; Chromos Boje i lakovi; Ru-Ve d.o.o.; Belmet97 d.d.; Emerson Process Management; Kefo d.o.o.; Merck d.o.o.	Jamnica d.d.; Pan-Pek d.o.o.; Hrvatska turistička zajednica, Kraš, prehrambena industrija d.d.; TOZ Penkala d.d.
2012	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science, Education and Sports Croatia	Pliva Hrvatska d.o.o.	Ansar analitika d.o.o.; Samoborka d.d.; Merck d.o.o.; Ru-Ve d.o.o.
2014	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association	Pliva Hrvatska d.o.o.; INA d.d.; Lachner d.o.o.; Saponia Osijek d.d.	Biovit d.o.o.; Obrnuta faza j. d.o.o.; Jamnica d.d.; Pan-Pek d.o.o.; PIK Vrbovec – mesna industrija d.d.



Year of the Meeting	Patrons	Sponsors	Donors
2016	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science and Education Croatia	Pliva Hrvatska d.o.o., Zagreb; INA – Industrija nafte, d.d.; KEFO d.o.o.; Ru-Ve d.o.o.; Profil Klett	Hrvatska turistička zajednica; Turistička zajednica grada Zagreba; Pan-Pek; PIK Vrbovec – mesna industrija; Instrumentalia d.o.o.; AlphaChrom d.o.o.; Jamnica d.d.; Carlsberg
2018	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science, Education and Sports Croatia	INA – Industrija nafte, d.d.; Pliva Hrvatska d.o.o.; Dechra – Genera d.d.; Xellia Ltd.; Agroproteinka d.d.; Ru-Ve d.o.o.	Labtim ADRIA d.o.o.; Jamnica d.d.; Pan-Pek d.o.o.; AlphaChrom d.o.o.; Turistička zajednica grada Zagreba; Hrvatska turistička zajednica; Turistička zajednica Zagrebačke županije
2020	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science, Education and Sports Croatia	INA – Industrija nafte, d.d., Zagreb; Dechra – Genera d.d.; Pliva Hrvatska d.o.o.; Xellia d.o.o.; Kefo d.o.o.; Alphachrom d.o.o.; Agroproteinka d.d.; Kemolab d.o.o.; ChemEngineering, an Open Access Journal by MDPI	Labtim ADRIA d.o.o.; Obrnuta faza d.o.o.; dr. sc. Sanja Slavica Matešić (private donation); Turistička zajednica grada Zagreba; Hrvatska turistička zajednica; Turistička zajednica Zagrebačke županije.
2022	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science, Education and Sports Croatia	Hanna Instruments d.o.o.; Fidelta d.o.o.; Mettler Toledo d.o.o.; Pliva Hrvatska d.o.o.; Siemens d.d.; Dechra – Genera d.d.; Kefo d.o.o.; Merck d.o.o.; Rockwool Adriatic d.o.o.; Shimadzu d.o.o.; Kontroltest International d.o.o.; Xellia d.o.o.; ChemEngineering Journal MDPI, izdavač; Agroproteinka d.d.; AlphaChrom d.o.o.; Biovit d.o.o.; Medic d.o.o.; Ru-Ve d.o.o.	Franck d.d., Kandit d.o.o.; Kemolab d.o.o.; Saponia d.d.
2024	University of Zagreb, Croatian Academy of Engineering, Croatian Engineering Association, Ministry of Science, Education and Sports Croatia	JGL d.o.o.; Selvita d.o.o.; Neuchemie d.o.o.; Shimadzu d.o.o.; Pliva Hrvatska d.o.o.; Siemens d.d.; Merck d.o.o.; Xellia d.o.o.; ChemEngineering Journal MDPI izdavač; Altium d.o.o.; Biovit d.o.o.; Medic d.o.o.; TCI Europe	Atlantic Grupa d.d. (Barcaffè); Turistička zajednica grada Zagreba



## CONTACT

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