

### **Conference Note**

With the completion of six new WWTPs (2015-2018), the total treatment capacity reach approximately 573 000 P.E. or around 27 % of the required capacity in our country.

Within Sector Operational Programme for Environment and Climate (2014-2020), are proposed to be constructed at least two other WWTPs which means the treatment capacity in the country would raise for 210.000 P.E. bringing the total capacity to approximately 784.000 P.E. or around 37.3% of the total

The Challenge is then to secure operational stability of the WWTPs not only from technical but also from financial point of view.

required capacity.

Going towards this goal by active exchange between all the shareholders such as public utilities, governmental institutions and universities is the aim of the Conference.

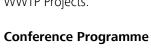
### Registration

No registration fee is required for attendance of the Conference.

The attendance of the Conference will granted due to Invitation.

Please take consideration that the Conference is focused on public utilities and decision makers in the sector of WWTP Projects.

Please be informed that the presented Programme is draft at the moment. Simultaneous Translation of German-Macedonian-Albanian will be granted. For an actual Programme Please visit: www.atw.org.mk



On the 12th of April a gettogether Dinner will be

**Get-Together Dinner** 

organized for the guests on the premises of the Aleksandar Palace Hotel Restaurant

### **Hotel Reservation**

The Organizer can assists in reservation of Hotel rooms for the registered guests on the Conference

### Food & Beverage

Food and Beverage will be organized during Conference for the registered guests.



### Supported by:











## **Location of the Event**

The Event will be held in the Conference Hall of Aleksandar Palace Hotel Bul. 8-mi Septemvri br.15 1000 Skopie

### Contact

For information and registration: Ms. Ana ana.grupcheva@atw.org.mk



### Sponsors:

















Здружение за Третман на Вода и Отпадна Вода Association for Treatment of Water and Wastewater



1st ATW-MK 2018

## Topic of the Conference:

## **Sustainability of Wastewater Treatment Plants** in R. Macedonia

Know-how transfer between Public Utilities, Government Institutions, Experts & Financing Agencies

- O Honored Speeches from Germany
- Planning and Construction of WWTPs
- Operation of WWTPs
- Maintenance of WWTPs
- Financing of WWTPs

12. and 13. April 2018

Conference Hall Aleksandar Palace Hotel City of Skopje

## In coordination with:

Ministry of Environment and Physical Planning

Delegation of European Union

Civil Engineering Faculty Skopje

Chamber of Certified Architects and Certified Engineers

ADKOM Association of Providers of Public Services













### Thursday 12

# дружение за Третман на Вода и Отпадна Вода

### Friday 13.04.2018

### **Opening of the Conference** Registration **♦**8:30 ♦ 10:00 Welcome & Opening Univ. Prof. Dr. -Ing. Petko Pelivanoski President of Association for Treatment of Water ATW-MK Mr. Sadulla Duraku Minister of Environment and Physical Planning Mr. Nicola Bertolini Head of Cooperation at Delegation of European Union Ms. Katrin Frühinsfeld Head of Education at German Embassy in Skopje Univ. Prof. Dr. -Ing. Darko Moslavac Dean of the Faculty of Civil Engineering Skopje Mr. Zoran Georgiev President of Association for Public Utilities ADKOM **Honored Speeches Development of Wastewater in Europe** Chaired by: Petko Pelivanoski ♦ 10:30 New German Concepts and technologies for the wastewater sector New semi-central sanitary concepts Decentralized treatment of storm runoff Filterable road construction for polluted rainwater Univ. Prof. Dr. -Ing. Max Dohmann Research Institute for Water and Waste Management at the RWTH Aachen, Germany ♦ 11.00 Challenges in Wastewater Treatment with regard to nutrient removal in Europe Nitrogen Removal Microbiology Future Perspectives Univ. Prof. Dr. Martin Denecke University of Duisburg-Essen, Department for Urban Water at the Civil Engineering Faculty Essen Germany ♦11:30 Advanced waste water treatment with regard to organic micro pollutant removal Activated Carbon Oxidation (Combined) Membrane Processes Univ. Prof. Dr. -Ing. Stefan Panglisch University of Duisburg Essen, Department of Process Engineering / Water Technology Essen Germany ♦ 12:00 Challenges in Operation of Wastewater Treatment Pants with regard to: **Energy Costs** Sludge Optimization of Operation Dr. Torsten Frehmann

Emschergenossenschaft - First founded Water

Management Association in Essen Germany

reatment of water and wastewater					
.С	4.2018	3			
		Planning Construction of WWTPs			
4	13:30	Chaired by: Milorad Jovanovski & Martin Denecke  Coordination during Construction of WWTP Radovish and			
	713.30	<ul> <li>WWTP Strumica with Lessons Learned</li> <li>Coordination between Ministry and Municipality</li> <li>Transport and Collection of Wastewater</li> <li>Future Projects with IPA Fund</li> <li>Ms. Jadranka Ivanova</li> <li>IPA Coordinator from the Ministry MOEPP</li> </ul>			
	•13:50	Development of a Wastewater Treatment Project from Concept until Implementation in Kichevo  Concept for Region  Transport and Collection of Wastewater  Design of WWTP Kichevo Univ. Prof. DrIng Goce Taseski Institute for Water and Wastewater at the Faculty for Civil			
		Engineering Skopje			
	14:10	Development of a Concept for difficult foundation of SBR Tanks in WWTP Kocani  Soil Conditions  Development of Design  Implementation of Foundation  Univ. Prof. DrIng Spase Gjorgjevski  Institute for Foundation at the Faculty for Civil Engineering for Civil Engineering Skopje			
	14:30	Structural Design according European and Macedonian Standards for Water-resistant Concrete Tanks			
•	14:50	Coffee Break			
	15:20	Challenges of Groundwater Management during Construction Time of WWTP Kocani  Challenges Approach Results Mr. Ljupce Kolev			
		Construction Company Zikol			
	15:40	Challenges of Groundwater Management during Construction Time of Collector Kichevo  Challenges  Approach  Results  Mr. Slavejko Georgiev Construction Company Vardargradba			
	16:00	Construction of WWTP Prilep with progress of work and risks during construction  General Overview  Risks and Countermeasures  Ms. Nikolina Ruvcheska  Project Implementation Unit of Prilep			

♦16:20 Group Discussion

Get-together Dinner

**◆**19:00

	▶9:30	Obligati with reg
		•
		• <b>Mr. Lu</b> Delegat
	▶9:50	Defining to reduce
		• Mr. Da
	▶10:10	How an operatio
		• Mr. Re ZOV – U
•	10:30	Coffee I
	▶11:00	Operation example •
		Mr. Go
	▶11:20	Optimiz operatio •
		Mr. Ko
	<b>▶</b> 11:40	Sludge valuable
		• Mr. Jür 000 Ek
	12:00	Using the the WW
		• • Mr. Vo
h		Certifica

	Operation of WWTPs	
	Chaired by: Jadranka Ivanova & Torsten Frehmann	
30	with regard to WWTP Projects	13:30
	Overview of Responsibilities	
	<ul><li>Experience of other EU candidate countries</li><li>Measures and successful approach</li></ul>	
	Mr. Luca Arras	
	Delegation of European Union in Skopje	
50	Defining the costs of Operation of WWTP with possibilities to reduce operational costs	13:50
	<ul><li>Calculation of Operation Costs</li><li>Optimization of Costs</li></ul>	
	Experience Values	
	Mr. Daniel Mertens Company for Operation of WWTPs - WTEB	
	Company for operation of vvvviis vvieb	
):10	How an automated process can help to reduce costs for operation of WWTPs	14:10
	SCADA Control	
	Overview of the Process	
	Optimization  Mr. Rene Matthies	
	ZOV – Utility for Operation of WWTP Zagreb	
	Operation Manager	
1·3U	Coffee David	14:30
1.30	Coffee Break	
:00	Operation of WWTP Kotor - Tivat and WWTP Budva as example of functioning WWTP on the Balkan	
	Taking into Operation	15:00
	Challenges during Operation	
	<ul> <li>Measures for stable Operation</li> <li>Mr. Goran Pejovic</li> </ul>	
	WWTP Kotor-Tivat Operation Manager	
:20	Optimization of the Aeration of the WWTP for stable	
	<ul><li>operation and savings of costs</li><li>Aeration as major cost factor</li></ul>	15:20
	Optimization	15.20
	• Results	
	Mr. Kolja Pirke	
	WWTP Dietzenbach - Process Engineer	
:40	Sludge treatment on the Wastewater Treatment Plants as valuable product	
	Sludge Treatment	15:40
	Sludge as valuable resource and product	13.40
	Sludge as Fertilizer	
	Mr. Jürgen Heinrichmeier	
	OOO EKO Service Sludge Treatment Moscow Russia	
2:00	Using the renewable energy source as valuable source at the WWTPs	
	Certification of Energy Management acc. ISO	16:00
	PV Unit and CHP	
	WWTP Märkische Schweiz Germany	
	Mr. Volker Hessenbruch Certification of Energy Management acc. ISO Standards	
	certification of Energy Management acc. 150 Standards	

### Staff & Maintenance of WWTPs Chaired by: Max Dohmann & Stefan Panglisch

Introduction of AHK and Macedonian-German Relationship with example of German dual educational system

- Training and Education in Macedonia
- Maintenance of Machines
- Networking iMove-Germany

### Mr. Tobias Bolle

Delegation of German Industry in Macedonia

Maintenance of Mechanical Equipment on the WWTP -Major Equipment Compressors

- In operation
- Maintenance
- **Energy Saving**

### Mr. Thorsten Poggenmoeller

Atlas Copco

Maintenance of Electro-technical Equipment on the WWTP - Major Equipment

- Transformer Station
- Electrical Rooms & SCADA
- Measurement Equipment

### Mr. Milosh Stankovic

Elektrovat

Coffee Break

### Financing of WWTPs

Chaired by: Max Dohmann & Stefan Panglisch

Financing support from the Swiss Government with regard to environmental projects

- Investment in R. Macedonia
- Sectors
- WWTP Kocani

### Ms. Stanislava Dodeva

Swiss Embassy – National Officer

Experience and overview of WWTP Projects of KfW Development Bank in the region

- Overview of WWTP in the Region
  - Experience
- Possibilities for Macedonia

### Mr. Robert Sarlamanov

KfW Development Bank

Investment of UNDP for the purposes of wastewater projects

- Financing Models
- Perspectives for Western Balkan
- **Procedures**

### Mr. Dimitar Sekovski

UNDP in Skopje - National Officer

Regulation of Prices in R. Macedonia

- Models
- Preliminary Experiences

### Ms. Adrijana Nelkova-Chuchuk

Regulatory Commission

Closing Ceremony – Final Discussion and Conclusion of the Conference

↑12:30 Lunch