



International Conference

**IMPLEMENTING EUROPEAN LAW
PRINCIPLES IN NATIONAL
ADMINISTRATIVE LAW**

Book of Abstracts

Opatija and Rijeka, 17th- 18th February 2025

International conference “Implementing European Law Principles in National Administrative Law”

Opatija and Rijeka, 17th – 18th February 2025

Publishers:

University of Rijeka, Faculty of Law

High Administrative Court of the Republic of Croatia

For publishers:

Dario Đerđa, Dean of University of Rijeka, Faculty of Law

Inga Vezmar Barlek, President of the High Administrative Court of the Republic of Croatia

Editors:

Dario Đerđa

Ana Pošćić

Adrijana Martinović

ISBN: 978-953-8034-61-9

The conference is organised in partnership with the Hanns-Seidel-Stiftung.

Rijeka, 2025.

TABLE OF CONTENTS

CONFERENCE PROGRAMME	5
KEYNOTE SPEAKERS	7
<i>Carsten Günther</i>	
General Principles of European Union Law and National Jurisdictions: A Two-way Street.....	8
<i>Ante Galić</i>	
The Principles of Administrative Dispute in the Republic of Croatia	9
<i>Inga Vezmar Barlek</i>	
The Principle of Proportionality – Case Law of the High Administrative Court of the Republic of Croatia	11
SESSION I - IMPLEMENTING EUROPEAN LAW PRINCIPLES IN NATIONAL ADMINISTRATIVE LAW IN EU COUNTRIES	13
<i>Carla Acocella</i>	
Implementing European Law Principles in the Framework of Transformations of the Relationships Between National Legal Systems and EU Law: Reflections on the Judgement of the Italian Constitutional Court no. 181/2024.....	14
<i>Bruna Žuber</i>	
The Right to Good Administration as a General Principle of EU Law	15
<i>Dario Đerđa</i>	
Modernisation of the Administrative Procedure in the Republic of Croatia	16
<i>Sanja Otočan</i>	
Implementation of the Principles of Public Procurement of European Union Law into Croatian Law	18
<i>Jonika Marflak Trontelj</i>	
Implementation of the Principle of Effectiveness (<i>effet utile</i>) in Slovenian Administrative Jurisprudence.....	20
<i>Christoph Schewe</i>	
Balancing Cohesion Policy and Anti-Corruption in EFRE Funding: A Case Analysis of CJEU C-743/18 and the Implications for National Actors	21

SESSION II - IMPLEMENTING EUROPEAN LAW PRINCIPLES IN NATIONAL ADMINISTRATIVE LAW IN NON-EU COUNTRIES 22

Ana Pavlovska-Daneva

Application of European Principles in the (Re)organization of the Macedonian State Administration..... 23

Dobrosav Milovanović

The Law on General Administrative Procedure of Serbia in the Light of EU Administrative Law Principles – Experiences and Possible Improvements 24

Edina Šehrić

The Europeanization of National Administrative Law in Bosnia and Herzegovina – A Problem or Challenge..... 25

Konstantin Bitrakov

Transposing European Principles and Civil Service Reforms in North Macedonia..... 26

Radojka Marinković

Principles of the European Law and Administrative Legal Protection in the Republic of Serbia..... 27

SESSION III - SUSTAINABILITY AND ARTIFICIAL INTELLIGENCE THROUGH THE LENS OF EU VALUES AND PRINCIPLES 28

Aleš Ferčič

Sustainable Development as a Legal Concept..... 29

Hana Horak

Artificial Intelligence in the Service of Sustainable Development: Legal Aspects of ESG Criteria and SDGS 30

Sandi Ljubić

Smart and Sustainable Buildings: Utilizing Deep Learning for Fault Detection in HVAC Systems 32

Damir Medved

Application of Artificial Intelligence to Achieve ESG Goals of Croatian Companies (and How Sustainable Energy and Employee Participation Can Help in This) 33

Ana Pošćić, Adrijana Martinović

The Intersection Between Artificial Intelligence and Sustainability: Moving from AI for Sustainability to Sustainable AI..... 35

INTERNATIONAL CONFERENCE
IMPLEMENTING EUROPEAN LAW PRINCIPLES IN NATIONAL ADMINISTRATIVE LAW

PROGRAMME

MONDAY, 17th FEBRUARY

Hotel Bristol, Ul. Maršala Tita 108, Opatija

17:00 – 17:15 OPENING SPEECHES

Full Prof. Ana Pošćić, Jean Monnet Inter – University Centre of Excellence Opatija, Head

Full Prof. Dario Đerđa, University of Rijeka, Faculty of Law, Dean

Klaus Fiesinger, Hanns-Seidel-Stiftung, Regional Director for Southeast Europe / **Aleksandra Markić Boban**, Hanns-Seidel-Stiftung, Head of Office in Zagreb

Ante Galić, Constitutional Court of the Republic of Croatia, Judge

Inga Vezmar Barlek, High Administrative Court of the Republic of Croatia, President

17:15 – 18:45 KEYNOTE SPEAKERS

Carsten Günther, Federal Administrative Court of Germany, Judge
General Principles of European Union Law and National Jurisdictions: A Two-way Street

Ante Galić, Constitutional Court of the Republic of Croatia, Judge
The Principles of Administrative Dispute in the Republic of Croatia

Inga Vezmar Barlek, High Administrative Court of the Republic of Croatia, President
The Principle of Proportionality – Case Law of the High Administrative Court of the Republic of Croatia

19:00 – 21:00 DINNER

TUESDAY, 18th FEBRUARY

Faculty of Law, Hahlić 6, Rijeka

9:00 – 11:00 SESSION I:

IMPLEMENTING EUROPEAN LAW PRINCIPLES IN NATIONAL ADMINISTRATIVE LAW IN EU COUNTRIES

Asst. Prof. Carla Acocella, University of Naples Federico II, Department of Law
Implementing European Law Principles in the Framework of Transformations of the Relationships Between National Legal Systems and EU Law: Reflections on the Judgement of the Italian Constitutional Court no. 181/2024

Assoc. Prof. Bruna Žuber, University of Ljubljana, Faculty of law
The Right to Good Administration as a General Principle of EU Law

Full Prof. Dario Đerđa, University of Rijeka, Faculty of law
Modernisation of Administrative Procedure in the Republic of Croatia

Sanja Otočan, High Administrative Court of the Republic of Croatia, Judge
Implementation of the Principles of Public Procurement of European Union Law into Croatian Law

Jonika Marflak Trontelj, Supreme Court of the Republic of Slovenia, Judge
Implementation of the Principle of Effectiveness (effet utile) in Slovenian Administrative Jurisprudence

Full Prof. Christoph Schewe, University of Applied Sciences for Administration and Services (FHVD) Kiel-Altenholz/Reinfeld, Department of Pension Insurance
Balancing Cohesion Policy and Anti-Corruption in EFRE Funding: A Case Analysis of CJEU C-743/18 and the Implications for National Actors

11:00 – 11:30 COFFEE BREAK

11:30 – 13:30 SESSION II:

IMPLEMENTING EUROPEAN LAW PRINCIPLES IN NATIONAL ADMINISTRATIVE LAW IN NON-EU COUNTRIES

Full Prof. Ana Pavlovska-Daneva, Constitutional Court of the Republic of North Macedonia, Judge
Application of European Principles in the (Re)organization of the Macedonian State Administration

Full Prof. Dobrosav Milovanović, University of Belgrade, Faculty of Law
The Law on General Administrative Procedure of Serbia in the Light of EU Administrative Law Principles – Experiences and Possible Improvements

Assoc. Prof. Edina Šehrić, University of Tuzla, Faculty of Law
Europeanization of National Administrative Law in Bosnia and Herzegovina – Problem or Challenge

Konstantin Bitrakov, Ss. Cyril and Methodius University in Skopje, Faculty of Law "Iustinianus Primus"
Transposing European principles and Civil Service Reforms in North Macedonia

Radojka Marinković, Administrative Court of the Republic of Serbia, President
Principles of the European Law and Administrative Legal Protection in the Republic of Serbia

13:30 – 14:30 LUNCH BREAK

14:30 – 16:10 SESSION III:

SUSTAINABILITY AND ARTIFICIAL INTELLIGENCE THROUGH THE LENS OF EU VALUES AND PRINCIPLES

Full Prof. Aleš Ferčič, University of Maribor, Faculty of Law
Sustainable Development as a Legal Concept

Full Prof. Hana Horak, University of Zagreb, Faculty of Economics and Business
Artificial Intelligence in the Service of Sustainable Development: Legal Aspects of ESG Goals and SDGs

Full Prof. Sandi Ljubić, University of Rijeka, Faculty of Engineering
Smart and Sustainable Buildings: Utilizing Deep Learning for Fault Detection in HVAC Systems

Damir Medved, EDIH Adria, Director
Application of Artificial Intelligence to Achieve ESG Goals of Croatian Companies (And How Sustainable Energy and Employee Participation Can Help in This)

Full Prof. Ana Pošćić, University of Rijeka, Faculty of Law

Assoc. Prof. Adrijana Martinović, University of Rijeka, Faculty of Law
The Intersection Between Artificial Intelligence and Sustainability: Moving from AI for Sustainability to Sustainable AI

This session has been partly supported by the University of Rijeka project "AI Regulation for Sustainability" [uniri-iskusni-drustv-23-104].

16:10 – 16:30 DISCUSSION & CLOSING REMARKS

Programme committee:

Full Prof. Dario Đerđa (Rijeka), Full Prof. Ana Pošćić (Rijeka), Full Prof. Gerald G. Sander (Ludwigsburg), Assoc. Prof. Bruna Žuber (Ljubljana), Inga Vezmar Barlek (Zagreb), Assoc. Prof. Adrijana Martinović (Rijeka)

Organising committee:

Narda Krnetić Blečić (Rijeka), Paula Šamanić Matijević (Rijeka), Ena Vlahović (Rijeka)

International conference “Implementing European Law Principles in National Administrative Law”

Opatija and Rijeka, 17th – 18th February 2025

KEYNOTE SPEAKERS

Carsten Günther

Judge at the Federal Administrative Court of Germany

General Principles of European Union Law and National Jurisdictions: A Two-way Street

The European Communities were founded as a means of international economic cooperation and common markets. Through several steps of consolidation and enlargement they have developed first into the European Community and finally into the European Union, weaving an ever tighter and firmer cloth of relations between the member states.

The European Union can be characterized as a European Legal Union. Almost from the beginning it was regarded an autonomous jurisdiction by the Court of Justice of the European Union. According to Art. 19 of the Treaty of the European Union the Court of Justice shall ensure that in the interpretation and application of the Treaties the law is observed. Based on this competence the Court of Justice has developed such important precepts as the prevalence of European Union law over national law and the direct applicability of directives under certain circumstances.

The Court of Justice's responsibility for the observance of the law has also lead to the recognition of general principles of law. There was a strong necessity for their development since on the basis of European Communities' law national fundamental rights could be impaired while European Communities' law did not yet provide for a toolbox to govern over the conflict of the Communities' interests and the individual fundamental rights inherent in all national legal jurisdictions.

The Conference held in Rijeka on February 17-18 2025 is treating the implementation of European law principles in national administrative law. Yet, it seems worth the effort to shed a light on the question where these general principles stem from. General principles of law have for a long time been recognized as a source of public international law. As principles of material justice they can be generated by way of comparison of the national legal orders. It can be seen that the Court of Justice relied on this technique when establishing European general principles of law in order to avoid a denial-of-justice-situation. European general principles of law are developed by the Court of Justice by way of comparison of the national jurisdictions of the member states. Yet, the European general principle of law cannot be reduced to the lowest common denominator. It would not be the Court of Justice if it did not aim further and looked for the principle which suits European Union law and its aims best.

As such, the Court of Justice has elaborated principles such as the protection of legitimate expectations, the equality principle, the principle of proportionality, the right to be heard and the prohibition of retroactivity, just to name some. The conference in Rijeka will offer a unique opportunity to assess the dialectic process between generating general principles of law from national jurisdiction and, as a second step, returning them to the national jurisdictions with the interpretation given to them by the Court of Justice.

Keywords: General Principles of Law, Court of Justice, Observance of Law and Comparative Law.

Ante Galić

Judge of the Constitutional Court of the Republic of Croatia

The Principles of Administrative Dispute in the Republic of Croatia

Administrative dispute in Croatia is governed by the Act on Administrative Disputes, which establishes five principles as criteria for proceedings and adjudication: the principle of legality, the principle of the party's right to be heard, the principle of oral hearing, the principle of efficiency, and the principle of assistance to an ignorant party. It is important to note that in addition to the aforementioned principles enshrined by the Act on Administrative Disputes, administrative courts must also apply principles accepted by the Constitution, as well as those recognized by international documents as part of the Croatian legal system (e.g., the principle of proportionality, prohibition of discrimination, the right to a fair trial, the right to a trial within a reasonable time, equality of all before the law, courts, and public authorities, etc.).

However, in this work, the author focuses on the principles proclaimed by the Act on Administrative Disputes, considering the complexity of their significance in correlation with principles important for the realisation of other fundamental principles essential for the functioning of the legal order and the rule of law. Thus, the principle of legality in administrative dispute obliges the court to decide based on the Constitution, the legal acquis of the European Union, international treaties, laws, and other applicable sources of law. The Constitution of the Republic of Croatia defines the constitutional-legal conception of the principle of legality by stating that everyone is obliged to adhere to the Constitution and laws and to respect the legal order of the Republic of Croatia. This legal and constitutional definition of the principle of legality establishes it as a fundamental complement in achieving the stability of administrative dispute and the legal system in general. All participants in administrative dispute (courts, bodies of state administration, other state bodies, bodies of local and regional self-government units, legal persons vested with public powers) are required to act in accordance with this principle, which binds them in both the application of substantive law and in the application of procedural regulations governing the proceedings.

The principle of the party's right to be heard stipulates that before rendering a judgment, the court must provide each party the opportunity to respond to the claims and allegations of other parties, as well as to all facts and legal issues that are the subject of the administrative dispute. Only exceptionally can the court decide without giving the parties this opportunity in cases prescribed by law.

This principle is connected to the principle of oral hearing, which mandates that in administrative dispute, the court decides based on an oral, direct, and public hearing. Without holding a hearing, the court can only decide in cases prescribed by law. The implementation of this principle is regulated by provisions of the Act on Administrative Disputes, which govern the scheduling of hearings, the public nature of hearings, the conduct of hearings, the conclusion of hearings, and the maintenance of order during the hearing.

The principle of efficiency, as one of the key principles, proclaims swift and effective administrative judicial protection as a *conditio sine qua non* for the protection of subjective rights in administrative disputes. According to this principle, the court is obliged to conduct the administrative dispute quickly and without undue delay, avoiding unnecessary actions and costs, while preventing the abuse of rights by parties and other participants in the dispute, and rendering a decision within a reasonable time. In cases where a specific law prescribes a deadline for resolving an administrative dispute, the proposer of the specific law must thoroughly and reasonably justify the reasons for such a deadline. This is because the Act on Administrative Disputes prescribes deadlines within which participants in the administrative dispute must take actions, while, on the other hand, limiting the possibility that specific laws unjustifiably determine the urgency of certain administrative disputes or short deadlines for rendering a decision in an administrative dispute. In accordance with the principle of efficiency, the Act on Administrative Disputes stipulates that parties are obliged to present all facts on which they base their claims in the lawsuit and the response to the lawsuit, propose evidence necessary to establish them, respond to the factual allegations and evidence proposals of other parties, and that the judge, as a rule, schedules one hearing for the trial to conduct all evidence. Efficiency in the conduct of courts in administrative disputes is a key determinant of the quality of legal, i.e., judicial protection, which enhances the sense of legal certainty and trust in the legal system. We can conclude that essential prerequisites for achieving effective judicial protection in administrative disputes, in addition to the legal regulation of administrative disputes, include adequate staffing capacity of courts and public legal bodies, along with the quality of normative regulation of individual administrative areas.

The principle of assistance to an ignorant party stipulates the court's obligation to ensure that the ignorance and incompetence of a party and other participants in the administrative dispute do not prejudice the rights they have based on the law. This principle aims to enable parties who do not possess sufficient legal knowledge to access the court and protect their subjective rights.

Keywords: principles, administrative dispute, administrative courts, Constitution, international treaty.

Inga Vezmar Barlek

President of the High Administrative Court of the Republic of Croatia

The Principle of Proportionality – Case Law of the High Administrative Court of the Republic of Croatia

In addition to legislation, case law also plays an important role in the implementation of the principles of European law in national legal systems because it demonstrates the operationalization and the actual role of individual principles.

The purpose of the principle of proportionality is reflected in the function of restricting the action of public authorities and it forms the basis for resolving conflicts between private and public interests. The importance of the principle of proportionality is reflected in its role that transcends the primary purpose of legal principles as representations of the values and standards used in interpreting legal rules and bridging legal gaps. The principle of proportionality is used to assess the legality of an individual or general measure of a public authority that interferes with subjective rights. The identification of a specific public interest on account of which subjective rights are affected is decisive for the assessment of the limits of the freedom to regulate as exercised by public authorities, and the principle of proportionality plays a particularly important role in cases of broad freedom of assessment.

Assessing the legality of a general act (an abstract and general legal norm) adopted by local or regional self-government units, legal entities with public authority and legal entities providing a public service also falls within the purview of the High Administrative Court of the Republic of Croatia.

In the specific case of assessing the legality of a general act – the Decision of a city, the Court qualified the Decision as illegal precisely because of the violation of the principle of proportionality.

It was a case in which the newly elected city government influenced the financial assistance (abolished / shortened the period of eligibility / reduced the amount) that was recognized by the previous city government for one category of parents, within its self-governing scope - pro-natalist policy. The beneficiaries of the support measure demanded an assessment of the legality of the newly adopted Decision, considering that it had been applied retroactively, because they were granted the right to financial assistance based on previous final decisions.

In this regard, the Court primarily examined the objections to the retroactive effect of a general act prohibited by the Constitution. In contrast to true retroactivity (the effect of a new regulation on terminated legal situations), which is prohibited without exception, the interpretative approach of the Court of Justice of the EU based on a teleological interpretation exceptionally allows for a quasi-retroactive effect of a new legal rule on existing legal relationships, under the essential condition that the legitimate goal of the new measure could not be achieved in any other way.

The aforementioned exception is limited by the application of the principle of proportionality, which requires that such retroactive effect of a new legal measure on cases that arose before its

entry into force is necessary to achieve the desired objective. Therefore, the Court applied the principle of proportionality, finding that the addressees of the new measure had suffered an excessive burden and annulled the contested Decision.

The principle of proportionality proves to be a flexible instrument for adapting the assessment of the legality of a measure to specific circumstances: a specific public interest, the freedom of assessment of public authority in a specific regulatory policy, and the gravity of the impact on specific individual situations that are affected.

Keywords: public interest, freedom of assessment, objective administrative dispute, retroactivity, quasi-retroactive effect.

SESSION I

**IMPLEMENTING EUROPEAN LAW
PRINCIPLES IN NATIONAL
ADMINISTRATIVE LAW IN EU
COUNTRIES**

Asst. Prof. Carla Acocella

University of Naples Federico II, Department of law

Implementing European Law Principles in the Framework of Transformations of the Relationships Between National Legal Systems and EU Law: Reflections on the Judgement of the Italian Constitutional Court no. 181/2024.

The intervention aims to analyze the theme of the conference – implementing European law principles within the national legal systems, and from the specific perspective of the speaker, the Italian one – as a phenomenon related to the expansion of the fields of European action. This expansive trend produces a transformation of the coordinates within which the dialogue between the European and national legal systems is placed.

Thus, looking at these processes in the context of the “transformations that have affected Union law and the system of relations with national legal systems after the entry into force of the Lisbon Treaty”, is required. On this specific reasoning – in particular with reference to the impact of the Charter of Fundamental Rights of the EU, directly applicable and therefore cause of expansion of the area of possible conflicts with domestic law – was based the well-known decision of the Constitutional Court no. 269/2017. The judgement, questionable for many reasons, represented a revirement in relation to the balance achieved after the Granital judgement, as it assumed raising the question of constitutionality as an obligation and not as an option.

Indeed, one of the most significant sources of transformation has turned out to be exactly the growing protection of the fundamental rights of European citizens. In addition to this, implementing general European principles in national legal systems has been accompanied by the tendency to formalize them in primary European law with their express provision in the treaties and with the attribution to them, to many of them, of a constitutional value. The issue of the implementation of the principles becomes, because of this formalization, also, in part, a problem of guaranteeing the primacy of European law.

In this context, the recent judgement of the Italian constitutional Court n. 181/2024 provides inspiration to reflect on all these issues, that are not lying – or at least not only – on the ground of the dialogue between legislators – European and national – and judges, instead highlighting the need to refer the implementing dimension of European law principles to the dialogue between administration and national (common) judges. It is not a coincidence that in this judgement, according to the judges, the inadequacy of the disapplication tool in order to effectively defend the primacy of European law would arise, among others, precisely in the cases where public administration continues to apply uncertain and controversial provisions. On the other hand, the judgement deals with one of the general principles, namely the non-discrimination principle, which appears as a paradigmatic field of analyses of issues such as those here mentioned.

Keywords: transformation, EU law primacy, administration, national judge, question of constitutionality.

Assoc. Prof. Bruna Žuber

University of Ljubljana, Faculty of Law

The Right to Good Administration as a General Principle of EU Law

The impact of EU law on national administrative procedures is significantly limited by the fact that the EU does not have the power to regulate administrative procedures in the Member States and does not have administrative instruments through which EU acts can be directly enforced in the Member States. Although the starting point for the enforcement of EU law is its indirect enforcement, EU law imposes several requirements that Member States must respect in national administrative procedures.

An essential part of the requirements of EU law on the implementation of administrative procedures in EU Member States derives from the right to good administration. This right consists of various rights, rules, and principles that guide administrative procedures. The right to good administration was first developed in the practice of the ECJ as a general principle of EU law and became part of primary EU law with the adoption of the Lisbon Treaty. Today, it retains a dual legal nature, protected as a general principle of EU law and as a right protected by Article 41 of the EU Charter of Fundamental Rights.

The contribution focuses on the scope of application of this right in the Member States and analyses some of the basic substantive requirements it imposes on them.

Regarding the scope of application of the right to good administration, Article 41 of the Charter determines that this right applies only to "the institutions, bodies, offices, and agencies of the Union" and not to national (administrative) authorities. In interpreting this provision, the ECJ relied on the dual legal nature of this provision and held that while the right under Article 41 of the EU Charter applies only to the EU institutions, the right to good administration, as a general principle of EU law, also binds the Member States. In this respect, the content of the general principle overlaps with the right under Article 41 of the Charter, so the interpretation of this Article is closely linked to the case law of the ECJ, which has developed with good administration as a general principle of EU law. Such an interpretation allows the right to good governance to be invoked before EU institutions, bodies, and national (administrative) authorities.

The right to good administration consists of several key principles established in the case law of the ECJ. This contribution highlights and analyses some essential elements of the right to good administration as outlined in Article 41 of the Charter: i) the duty of care, which requires the authority to act fairly and impartially towards the party and to examine the matter thoroughly before taking a decision, ii) the right of every person to be heard and the right of every person to have access to their file, iii) the obligation of the administration to give reasons for its decisions.

Keywords: right to good administration, scope of application, dual legal nature, general principle of EU law.

Full Prof. Dario Derda

University of Rijeka, Faculty of law

Modernisation of the Administrative Procedure in the Republic of Croatia

The General Administrative Procedure Act, as the fundamental procedural law governing decision-making in administrative matters, has been in force at the territory of present-day Croatia since 1930. This early adoption in the Kingdom of Yugoslavia, positioned Croatian public administration among the first globally to be procedurally bound by the principle of legality. After World War II, Croatia became part of Socialist Yugoslavia, the first socialist state to comprehensively regulate administrative procedures through a highly detailed law. This Act remained effective until the dissolution of Yugoslavia, after which it was incorporated, with certain amendments, into the legal system of the independent and sovereign Republic of Croatia.

Despite the General Administrative Procedure Act inherited from Socialist Yugoslavia being regarded as a high-quality and well-structured law that effectively addressed the procedural needs of public administration, the early 21st century brought ideas for its revision. These demands were driven by extensive reforms in public administration, the proliferation of special administrative procedures, and the increasing use of informatics and communication technologies in administrative operations. These initiatives were strongly supported also by the European Union, as Croatia approached towards full membership. As part of EU accession negotiations, the long-standing Act underwent amendments. The drafting of the new Act was based on the CARDS 2003 project's recommendations, which were adjusted to the features of the Croatian legal system. The revised and modernised Act was adopted in 2009 and came into force on January 1, 2010.

The new Act, although nearly half the length of its predecessor, broadened its regulatory scope and introduced substantial innovations into Croatian administrative procedural law. It expanded the range of entities subject to its provisions and extended its application to various administrative actions directly impacting individuals' rights, obligations, and legal interests. For the first time in Croatia, the term "administrative matter" was clearly defined. The Act explicitly emphasised the application of the principle of proportionality in both administrative decision-making and the execution of decisions. Additionally, it introduced principles governing data access and protection into administrative procedural legislation. The Act mandated organisation of administrative contact points, facilitating greater efficiency in administrative processes. It redefined the designation process for officials authorized to conduct administrative procedures, thereby enhancing their accountability. Innovations included the introduction of electronic communication and document delivery between parties and public administration bodies. Provisions were also established for handling submissions and documents prepared in foreign languages. Particular emphasis was placed on keeping parties informed about the progress of proceedings and actions taken during the process. Moreover, several new legal concepts were introduced, including the presumption of approval for a party's request, guarantees for the acquisition of rights, and the reconstruction of case files. The system of extraordinary legal remedies was comprehensively reformed, and procedural costs were regulated more equitably. For the first time, administrative contracts were incorporated into Croatian law. Finally, a new

legal remedy – the objection – was introduced, further reinforcing the rights of individuals that may be adversely affected by actions taken by public administration.

Keywords: administrative procedure, General Administrative Procedure Act, modernisation, Croatia.

Sanja Otočan

Judge at the High Administrative Court of the Republic of Croatia

Implementation of the Principles of Public Procurement of European Union Law into Croatian Law

This paper is a consideration of the implementation of the principle of equal treatment, as one of the principles of public procurement under EU law, into Croatian law, in light of the recent judgment made by the Court of Justice of the EU with regard to the request of the High Administrative Court of the Republic of Croatia for a preliminary ruling regarding a specific public procurement procedure in the Republic of Croatia in which one of the bidders, an economic entity from the Republic of Turkey, filed a complaint stating that the application of the institute of supplementing the tender documentation in this specific case violated the principle of equal treatment in favor of the (selected) bidder from the EU.

Conducting public procurement procedures in accordance with public procurement principles is extremely important *inter alia* in order to achieve free market competition and prevent potential abuses. The principle of equal treatment requires that similar or comparable situations should not be treated differently unless such treatment is objectively justified. It requires bidders to have equal opportunities when formulating their bids and implies that such bids should be subjected to the same conditions with regard to all bidders. The application of this principle is mandatory at all stages of the public procurement procedure. Regarding its application to the institute of supplementing the tender documentation, the relevant EU law, which has been implemented into Croatian law, requires that supplementing the tender documentation must not lead to negotiations regarding the offered subject of procurement. Namely, in practice, supplementing the tender documentation may result in a more favorable position for the bidder who has supplemented their tender documentation compared to other bidders, which gives the bidders who are considered to be injured parties the basis for filing a complaint alleging a violation of the principle of equal treatment.

By way of judgment no. C-652/22 of 22 October 2024, which was made with regard to the Croatian request, the Court of Justice of the EU interpreted for the first time the application of the principles of public procurement of EU law, specifically the principle of equal treatment, in relation to economic operators from third countries that are not signatories to the World Trade Organization's General Procurement Agreement (GPA). This judgment, which should be viewed primarily in the context of the current economic and other circumstances in the EU, as well as more broadly, showed that the Croatian legislator prescribed, and the competent national authorities applied, the principle of equal treatment in public procurement procedures to economic operators from third countries that are not signatories to the GPA agreement in public procurement procedures in the Republic of Croatia, which, according to the opinion of the Court of Justice of the EU, is contrary to EU law. This case has shown that Croatian law, guided by the fundamental civilizational and legal achievements, has guaranteed the application of the principle of equal treatment to all economic operators participating in public procurement procedures in the Republic of Croatia, thereby granting economic operators from third countries outside the circle of signatories to the GPA agreement more rights than they are entitled to under

EU law. Given the supremacy of EU law over national law, there is no doubt that a time is coming when, above all, the Croatian legislator will be challenged to amend the public procurement normative framework, which will be fully aligned with the opinions of the Court of Justice of the EU stated in the judgment of 22 October 2024.

Keywords: Court of Justice of the EU, public procurement, principle of equal treatment, supplementing the tender documentation, GPA.

Jonika Marflak Trontelj

Judge at the Supreme Court of the Republic of Slovenia

Implementation of the Principle of Effectiveness (*effet utile*) in Slovenian Administrative Jurisprudence

The principle of effectiveness was recognised by the CJEU at an early stage as a general principle. The effectiveness of the law, in conjunction with its implementation through the state apparatus, is a fundamental condition for the effective implementation of the rule of law within any legal system.

The right to a judicial remedy is the only real guarantee that substantive legal rights are adequately protected. If the legal order recognises a right, it must also recognise the right to its effective protection. At the same time, only an effective judicial system can guarantee effective judicial protection for the individual. It follows that the clear line between the principle of effectiveness or the principle of effective judicial protection and the right to judicial protection is blurred by the very nature of these institutes. In more recent case law, the CJEU has increasingly referred to the "general principle of effective judicial protection" and to the "right to an effective remedy" as derived from Article 47 of the EU Charter in relation to the protection of the individual and the principle of effectiveness.

The Supreme Court of the Republic of Slovenia in two recent decisions in the field of asylum law took into account the relevant EU asylum law (Article 29(1) and (2) of the Dublin III Regulation) as well as the CJEU case law and the principle of effectiveness. The Supreme Court stated, that the case-law of the CJEU requires an effective system of legal remedies when determining the circumstances which have led to the expiry or extension of the time limit laid down in Article 29 of the Dublin III Regulation. From this request under the Dublin III Regulation and the case law of the CJEU, the Supreme Court concluded that the Article 51(2) of the International Protection Act must be interpreted in such a way that it also gives an applicant for international protection the opportunity to file a request that the administrative authority proceed in accordance with this provision, since the time limit for his transfer to another Member State has expired. Because only in this way is the applicant also guaranteed access to an appropriate legal remedy in connection with the alleged expiration of the time limit for his transfer referred to in Article 29(2) of the Dublin III Regulation, as required by the case law of the CJEU.

To conclude: after a substantive presentation and analysis of these two decisions of the Supreme Court of the Republic of Slovenia the important role of the principle of effectiveness was confirmed, both as a relevant legal basis for judicial review and also in the interpretation of the national provision of Article 51(2) of the International Protection Act.

Keywords: the principle of effectiveness, the principle of effective judicial protection, the right to judicial protection, the right to an effective remedy.

Full Prof. Christoph Schewe

University of Applied Sciences for Administration and Services (FHVD) Kiel-Altenholz/Reinfeld, Department of Pension Insurance

Balancing Cohesion Policy and Anti-Corruption in EFRE Funding: A Case Analysis of CJEU C-743/18 and the Implications for National Actors

This presentation analyses the implications of the CJEU judgment in Case C-743/18, addressing an important issue for EU fund management: should a company be required to repay EFRE funds if its sole major client becomes insolvent? The case illustrates the tension between cohesion policy objectives, aimed at promoting regional development, and financial control measures designed to safeguard the EU budget against irregularities.

At the core of this case is the question of whether the unforeseen insolvency of a third party should automatically trigger repayment obligations for beneficiaries. Advocate General Sharpston’s opinion provided practical guidance, systematically analysing the respective legal requirements, arguing that national authorities should assess insolvency situations on a case-by-case basis for considering whether the beneficiary acted diligently. However, in contrast to the comprehensive analysis provided in this opinion, the CJEU’s ruling lacks clarity, leaving national judges with significant interpretive challenges.

The ruling highlights a key issue: CJEU judgments that leave crucial aspects open to interpretation place a heavy burden on national courts. Judges must decide whether insolvency-related risks are an "irregularity" under EU rules and whether corrective measures are proportionate. This ambiguity forces national judges to navigate legal uncertainties and apply broad, discretionary assessments when balancing cohesion policy goals with strict financial controls. Critics note that the CJEU ruling in C-743/18 leaves judges without the clear benchmarks provided by the Advocate General's opinion.

The presentation also explores the relevance of this case for EU candidate countries. Managing structural funds is critical during the enlargement process, as new Member States must align national frameworks with evolving EU jurisprudence. Ambiguous CJEU judgments risk complicating the implementation of these mechanisms, making it harder to balance promoting regional development with enforcing financial accountability.

By emphasizing the practical consequences of the judgment for national actors, this presentation contributes to the broader debate on how European values—such as sound financial management and the rule of law—shape administrative practices. The findings underline the need for clearer, more actionable CJEU rulings to ensure consistency and fairness in EU fund management, particularly in conditions of economic uncertainty.

Keywords: Interpretation and Implementation of CJEU Judgments by National Courts, EFRE Funds, Irregularities, National Judges' Discretion, EU Enlargement.

SESSION II

**IMPLEMENTING EUROPEAN LAW
PRINCIPLES IN NATIONAL
ADMINISTRATIVE LAW IN NON-EU
COUNTRIES**

Full Prof. Ana Pavlovska-Daneva

Judge at the Constitutional Court of the Republic of North Macedonia

Application of European Principles in the (Re)organization of the Macedonian State Administration

The year 2024 marked the initiation of substantial reforms in the Macedonian public administration. In mid-2024, the Macedonian Parliament adopted amendments to the Law on Organization and Operation of State Administrative Authorities, a fundamental legal framework requiring a two-thirds parliamentary majority for adoption or amendment. This legislative change resulted in the reorganization of ministries (and increase of their number) while improving accountability lines and initiating the reduction of (other) public authorities. These amendments represent the initial phase of a broader reform agenda, necessitating further alignment of other relevant legislation with the amended law. Thus, the effects of these reforms are yet to be monitored, analyzed and determined.

Moreover, the competent ministry responsible for public administration began drafting new legislation aimed regulating public sector employees and public (or civil) servants in a more comprehensive manner. These forthcoming laws are designed to strengthen the merit-based system for recruitment and promotion, ensure employee retention, and enhance accountability among public sector staff. The final content of these laws, as well as their implementation, remains to be seen.

What is not yet initiated in the broader reform process is the establishing of clearer and more comprehensive rules for the appointment and dismissal of non-political public officials, such as managers within public authorities, to delineate the boundaries between the spoils system and the merit-based recruitment system. Such new legislation is yet to be developed and debated upon.

Therefore, the efforts in the last year underscore North Macedonia’s commitment to modernizing its public administration. However, sustained efforts and strategic investments will be required to address existing gaps. Beyond aligning with European integration processes, these reforms present an opportunity to create a more accountable, efficient, and citizen-oriented administration. This paper examines both the completed and anticipated reforms in North Macedonia’s public administration within the context of European standards, particularly those outlined in key documents issued by SIGMA and the European Commission.

Keywords: reorganization, North Macedonia, SIGMA, European principles, administrative authorities.

Full Prof. Dobrosav Milovanović

University of Belgrade, Faculty of Law

The Law on General Administrative Procedure of Serbia in the Light of EU Administrative Law Principles – Experiences and Possible Improvements

The previous General Administrative Procedure Act (GAPA) was an example of quality regulation in the legal system of Serbia (before that, Yugoslavia). GAPA did not change often, so authorized officials and subjects to whom it applied had the opportunity to study and implement it well.

However, changes on the economic, social and technological level required its improvement. The immediate reasons were harmonization with the Constitution of Serbia from 2006 and with the European Union acquis. The paper first analyzes the general principles of administrative law of the European Union, and then the way in which they have been transposed into the legal system of the Republic of Serbia. In this regard, legal certainty has been significantly increased, the scope of the principle of proportionality has been widened, the concept of administrative matter has been expanded – in order to provide administrative law remedies against every activity in connection with individuals and legal entities, the efficiency and effectiveness of the procedure have been substantially increased. Moreover, the GAPA has created the legal basis for use of new technologies and electronic communication between public administration and parties, has introduced new and improved outdated solutions, as well as increased effectiveness, efficiency and economy of the procedure.

Based on the solutions of the new GAPA and the experiences in its implementation, it should be investigated whether there is a need for further harmonization with the principles of EU administrative law and, if so, how this should be carried out, in order to take into due account the national context, including objective circumstances, the degree of existing technical and technological development and the direction of its future progress, available human resources, as well as the traditions of the Serbian legal system. In this regard, the urgent need for reform of the Administrative Disputes Act (ADA) should also be considered, as the ADA is closely linked with the GAPA and thus it is a priority that the two acts are fully harmonized, based on the same model and similar solutions and providing a comparable level of protection to the parties.

On the other hand, in order to fully understand the positive and negative consequences of GAPA, it would be necessary to adopt a methodology for monitoring its implementation. Key prerequisites for the successful implementation of GAPA seem further to be the constant process of harmonizing special laws with GAPA, a functional analysis to ensure efficient and cost-effective handling and a uniform workload for officials, strengthening the autonomy and professionalization of public officials, and completing the interoperability of e-government.

Keywords: administrative procedure, legal certainty, proportionality, efficiency, accountability.

Assoc. Prof. Edina Šehrić

University of Tuzla, Faculty of Law

The Europeanization of National Administrative Law in Bosnia and Herzegovina – A Problem or Challenge

The paper titled “The Europeanization of National Administrative Law in Bosnia and Herzegovina – A Problem or Challenge “ was written out of conviction regarding the lack of comprehensive treatment of this phenomenon in contemporary Bosnian administrative theory. At the current stage of the legal-political system's development, the administration bears numerous social responsibilities and serves as an indispensable instrument for regulating social processes. At the same time, it is the most important driver of the Europeanization process, which requires aligning national legislation with the European *acquis*. This is the most difficult task for Bosnia and Herzegovina's public administration, whose Europeanization efforts have thus far resulted in limited progress.

Why is this the case? How have specific political, socio-economic, and even traditional circumstances influenced the success or failure of adaptation to European administrative standards? What systemic problems across all levels of public administration continue to limit progress? The answers to these questions require, above all, a brief overview of the process of stabilization and association, which included the countries of the Western Balkans and introduced several instruments for strengthening political, economic, and institutional relations between the European Union and candidate and potential candidate countries for membership. Ultimately, an analysis of the impact of European integration processes on the national administration system will result in certain *de lege ferenda* proposals. Additionally, concrete solutions will be offered for the most significant shortcomings of the reform process identified so far—namely, the absence of institutional cooperation, a harmonized approach across different levels of government, political support, and secured financial resources.

Keywords: Europeanization, administrative standards, adaptation, reform, stabilization and joining process.

Konstantin Bitrakov

Ss. Cyril and Methodius University in Skopje, Faculty of Law “Iustinianus Primus”

Transposing European Principles and Civil Service Reforms in North Macedonia

The reform of the civil service in North Macedonia remains a critical priority in the country’s alignment with European Union standards, as outlined in the SIGMA Monitoring reports, the (progress) reports on North Macedonia which are issued annually by the European Commission, as well as the documents which outline the Reform Agendas under the Reform and Growth Facility for candidate countries. These reports have consistently highlighted the need for a professional, merit-based, and accountable civil service as a cornerstone for effective governance and public administration. In response, the Ministry of Public Administration in North Macedonia has initiated the drafting of three key legislative frameworks: a new Law on Public Sector Employees which shall replace the existing one, a new Law on Administrative Servants which shall replace the existing one, and a brand new Law on Trainings and Professional Improvement of Administrative Servants which shall regulate aspects which are nowadays not covered under any applicable law.

These laws aim to address persistent challenges within the civil service by ensuring adherence to principles of meritocracy, including transparent recruitment, dismissal, and promotion procedures. Furthermore, the reforms seek to strengthen mechanisms for staff accountability, professional development, and retention, thereby fostering a more competent and citizen-oriented public administration. In other words, these three new laws shall, if adopted, introduce quite a few novelties within the civil service system in North Macedonia.

This paper examines the anticipated impact of these legislative efforts in the broader context of European integration and SIGMA recommendations. It analyzes how the proposed laws can contribute to aligning North Macedonia’s civil service with European principles, emphasizing the importance of sustained implementation and increased institutional capacity. By exploring the interplay between legislative reforms and administrative modernization, the study underscores the pivotal role of the civil service in fostering accountability, efficiency, and public trust in governance.

Keywords: civil service, North Macedonia, public sector employees, European principles, SIGMA.

Radojka Marinković

President of the Administrative Court of the Republic of Serbia

Principles of the European Law and Administrative Legal Protection in the Republic of Serbia

With regard to the fundamental concepts of the sources of the EU law and European administrative law, there is an unequivocal significance of the case-law of the European Court of Justice and European Court of Human Rights in establishing their basic legal principles. In reference to the principles of supremacy and direct legal effect of the EU law, there are noticeable consequential radical changes within the system of the sources of law in national legislation of the member states, which has been made more intricate by the logical process of the EU law application and the system of its interpretation which allows the regulations within the national legislation to be given a meaning compatible with the EU law. The Republic of Serbia is in the EU accession process and is obliged to harmonize its national regulations with those of the European Union, which arises from the accession requirements and is explicitly prescribed by the Stabilization and Association Agreement from 2008. This obligation implies the transposition process, that is, the integration of the EU Directives in national legislation, while the regulations are applied directly. The basic technical instrument for the observance of situation in terms of compliance between the national and EU regulations is the Statement of the law maker on the compliance of national law with EU regulations. The status of the Republic of Serbia, as a candidate for the EU accession does not radically impact the system of sources of law in the Republic of Serbia, but introduction of new standards into the national legislation from a complex legal system, such as that of the EU, opens a series of questions in the application of incorporated provisions of the EU law in the national frameworks, for the resolution of which the principles of the EU law and their application in the case-law of the European Court of Justice could be particularly important. Furthermore, the Constitution of the Republic of Serbia requires that provisions on human and minority rights are interpreted in accordance with the practice of international institutions supervising the implementation of international standards on human and minority rights, which implies that supranational law, such as the law made by the European Court of Justice (judge-made law) is considered to be an integral part of internal order of the Republic of Serbia. Accordingly, all the state authorities in the Republic of Serbia (both judicial power and public administration) are obliged to adhere to and implement the case-law of the European Court of Human Rights, and standards in the field of human rights in the application of national laws. Finally, through the review of the Law on Administrative Disputes in the Republic of Serbia, experiences and potential challenges of legal regulative of administrative judicial protection in the Republic of Serbia have been analyzed in relation to the principles of the EU law.

Keywords: sources of EU law, European Court of Justice, European Court of Human Rights, transposition of EU Directives into national legislation, sources of law in the Republic of Serbia, harmonization of provisions in the accession process, administrative dispute.

SESSION III

**SUSTAINABILITY AND ARTIFICIAL
INTELLIGENCE THROUGH THE LENS
OF EU VALUES AND PRINCIPLES**

Full Prof. Aleš Ferčič

University of Maribor, Faculty of Law

Sustainable Development as a Legal Concept

The author seeks to address sustainable development as a legal concept. This concept has been, and continues to be, widely utilised in numerous international, supranational, and national legal acts and political documents, yet it remains inconsistently ‘defined’. However, it is possible to derive its essential elements from the context of relevant international and supranational legal acts and documents, which encompass economic, social, and environmental dimensions. Sustainable development is a dynamic concept. Therefore, the primary objective is to identify external boundaries and the associated reasonable criteria for determining the content of sustainable development as a legal concept, and to critically evaluate these boundaries and criteria. Accordingly, the author first presents the terminological and semantic foundations, with an emphasis on the distinction between sustainability and sustainable development. The core of the presentation consists of a substantive discussion of sustainable development. The author explains the main developmental milestones of the legal definition of sustainable development at the UN level and generally at the level of the international community. The so-called Brundtland Report appears to be the key document, influencing virtually all UN conventions and documents. In the author’s opinion, this report has negatively impacted the understanding of the discussed legal concept. Subsequently, the author examines selected issues related to the conceptual definition of sustainable development in EU law. The Treaties consider sustainable development without defining it. The concept is specifically found in Article 11 TFEU, known as the integration clause. It is argued that the wording of this provision is suboptimal. Paradoxically, according to the author, the environment and nature do not benefit from it, or at least not sufficiently. Finally, the author presents findings and theses, with an emphasis on the distinction between anthropocentric and ecocentric definitions of sustainable development. The author openly advocates for an ecocentric definition of sustainable development but warns that, unfortunately, the prevailing definition within the UN and EU is anthropocentric. According to the author, such a definition, or more generally, an anthropocentric approach to sustainable development, is incapable of effectively preserving the natural basis or foundations for life.

Keywords: sustainable development, sustainability, circular economy, green economy.

Full Prof. Hana Horak

University of Zagreb, Faculty of Economics and Business

Artificial Intelligence in the Service of Sustainable Development: Legal Aspects of ESG Criteria and SDGS

The convergence of artificial intelligence (AI), sustainability, and corporate responsibility introduces a complex interplay of legal, ethical, and operational considerations. This interaction is particularly significant for businesses striving to achieve the United Nations Sustainable Development Goals (SDGs) while adhering to Environmental, Social, and Governance (ESG) criteria. As the global focus intensifies on sustainability and corporate accountability, the integration of AI in these domains offers unprecedented opportunities, as well as challenges, that demand careful examination and strategic action.

AI has the potential to transform industries and societies by optimizing resource management, enabling data-driven decision-making, and fostering innovative solutions to global challenges, such as climate change, social inequality, and economic disparities. By leveraging AI, companies can develop tools and strategies that advance sustainable practices, promote ethical governance, and contribute to achieving the SDGs. For example, AI-powered technologies can enhance energy efficiency, reduce waste, and improve supply chain transparency, thereby aligning with ESG principles and advancing global sustainability.

However, integrating AI into sustainability and corporate responsibility initiatives requires navigating a myriad of legal and ethical complexities. The use of AI in such contexts must align with existing regulatory frameworks while addressing emerging issues, such as data privacy, algorithmic bias, and accountability. These challenges highlight the need for robust legal standards that ensure AI technologies are deployed responsibly and transparently, without exacerbating existing inequalities or creating unintended negative consequences.

Policymakers, businesses, and legal practitioners play a critical role in shaping the intersection of AI, ESG, and SDGs. Policymakers must establish clear and adaptive regulations that promote the ethical use of AI while encouraging innovation. Businesses, on the other hand, are tasked with embedding AI-driven solutions into their sustainability strategies in a manner that is both compliant and impactful. Legal practitioners are essential in crafting agreements, policies, and standards that address the legal implications of AI deployment in sustainability contexts.

Collaboration among these stakeholders is essential to mitigate risks and unlock AI’s potential to drive meaningful progress. A harmonized approach to governance and regulation is needed to foster innovation while safeguarding ethical considerations. Such efforts will enable AI to become a catalyst for achieving the SDGs and meeting ESG criteria, creating a more sustainable and equitable future.

The integration of AI into sustainability and corporate responsibility is not merely a technological challenge; it is a multidimensional endeavor that requires interdisciplinary insights and global cooperation. As the world seeks to align technological advancements with sustainable

development, the legal and ethical dimensions of AI’s role in achieving SDGs and ESG goals remain at the forefront of contemporary discourse.

Keywords: Artificial intelligence, SDGs, ESG criteria, sustainability, corporate responsibility.

Full Prof. Sandi Ljubić

University of Rijeka, Faculty of Engineering

Smart and Sustainable Buildings: Utilizing Deep Learning for Fault Detection in HVAC Systems

The concept of smart buildings has become one of the cornerstones of modern sustainability initiatives. It offers innovative ways to reduce energy consumption, increase operational efficiency and improve the quality of life for occupants. Smart buildings integrate advanced technologies such as Internet of Things (IoT) systems, sensor networks and Artificial Intelligence (AI) to create dynamic environments capable of responding to real-time conditions and occupant needs. Among the most significant energy consumers in buildings are Heating, Ventilation and Air Conditioning (HVAC) systems, which play an important role in maintaining comfort and often account for up to 50% of a building’s total energy consumption.

Critical to achieving the sustainability goals of smart buildings is the design and deployment of sensor-based systems that enable continuous monitoring and data collection. Sensors provide high-resolution data on factors such as air temperature, air quality, occupancy, and equipment performance and form the backbone of intelligent building management systems. This data, together with information on environmental settings, not only provides time-series-based insights into real-time conditions, but also serves as the foundation for predictive and corrective strategies supported by AI and, in particular, Deep Learning (DL).

This topic looks at the integration of DL models into the management of HVAC systems and shows how these technologies can be used to detect and diagnose faults and redesign energy-intensive processes in a building. This is because DL models can detect inefficiencies and classify observed problems to optimize system performance by learning from historical and real-time data. For example, certain faults in HVAC components such as stuck valves, reduced airflow, and fan coil unit (FCU) outage can be identified early, minimizing disruption and energy waste. In addition, trained DL models can be used to predict indoor temperature, allowing building managers to proactively fine-tune system settings to balance energy savings while retaining occupant comfort.

Smart buildings and associated technologies are closely linked to global sustainability goals as they reduce greenhouse gas emissions, save energy and promote environmentally friendly urban development. Through the implementation of sensor networks and the use of data-driven management tools, building owners and policy makers can make informed decisions that promote both economic efficiency and environmental responsibility.

This presentation will provide a less technical overview of the intersection between smart building technologies and sustainability, with a focus on the role of AI in optimizing HVAC systems in hotel buildings. Experiences from two years of collaboration between academia and industry in this area will be shared and practical insights and results from the real project will be presented.

Keywords: smart buildings; HVAC systems; deep learning; energy consumption; sustainability.

Damir Medved

Director of EDIH Adria

Application of Artificial Intelligence to Achieve ESG Goals of Croatian Companies (and How Sustainable Energy and Employee Participation Can Help in This)

The recent integration of artificial intelligence (AI) into corporate strategies is changing the way Croatian companies approach meeting environmental, social and governance (ESG) goals. ESG is no longer a topic only for large corporations, but the application is also "lowered" to small and medium-sized enterprises. By leveraging the AI technologies available today (Agents, Chatbots, LLMs), even smaller companies are discovering they can embark on the path of sustainability, foster community well-being, and improve their own governance. In Croatia, industries such as tourism, trade, agriculture, and logistics are particularly suitable for achieving ESG goals with the help of artificial intelligence.

From an environmental point of view, AI can significantly reduce the amount of waste or optimize resource consumption. For example, machine learning algorithms can monitor energy consumption in real time, determine inefficiencies in certain areas, and adjust business processes to avoid negative effects. Industrial companies can use computer vision to detect product defects early, reducing material waste, while tourism operators, for example, can use predictive analytics to predict visitor demand and optimize supply distribution. As we have seen within the EDIH ADRIA project, drones and satellite images powered by artificial intelligence support the monitoring of a large number of environmental parameters, such as water quality or land use, which enables early detection of potential abuses and thus helps to eliminate environmental risks in a timely manner.

On the social level, as shown by DMA analyses conducted through the EDIH ADRIA project, AI-driven tools can help Croatian companies create safer and more inclusive workplaces. Advanced analytics can be applied to analyze employee feedback and detect patterns of dissatisfaction or discrimination, assisting HR teams in implementing timely interventions. AI Agents or AI-assisted Chatbots can increase employee engagement, providing easy access to mental health resources, career development guidance, and tailored education. AI can also help in better interaction with local communities, listening to their needs or problems, allowing companies to effectively adapt their outreach programs and informing local communities.

In terms of governance, AI can strengthen the transparency and accountability of companies by automating the reporting process. Companies that are subject to strict ESG disclosure requirements can benefit from AI systems that aggregate and analyze data from various sources, helping to create standardized, transparent, and verifiable reports. In addition, predictive analytics can help identify early signs of corruption in an organization, identify fraud or non-compliance, significantly improving overall risk management. The adoption of AI in company management also facilitates real-time strategic decision-making to anticipate potential market or regulatory changes – and this is crucial for managing companies in increasingly competitive business environments.

Despite all the above advantages for using AI technologies to meet ESG goals, Croatian companies face significant challenges in concrete application. The primary problem is limited access to high-quality data, a lack of skilled AI workforce, and unclear legal and ethical guidelines. How to avoid it and what options are available to us is precisely the subject of this article.

Keywords: AI, ESG, Agents, Community, EDIH ADRIA.

Full Prof. Ana Pošćić

University of Rijeka, Faculty of Law

Assoc. Prof. Adrijana Martinović

University of Rijeka, Faculty of Law

The Intersection Between Artificial Intelligence and Sustainability: Moving from AI for Sustainability to Sustainable AI

New technologies together with AI contribute to the socio – ecological transformation of the economy. There has been much discussion about the development of AI that aligns with sustainable development goals. The AI systems can enable, but they can also significantly impede the achievement of the sustainable development goals.

It is therefore crucial to examine the potential pathways for realizing the sociological, ecological, and economic implications of these systems, all with the overarching goal of advancing sustainable development objectives. The presentation will try to move further by addressing the challenges associated with developing, deploying, and using AI in a sustainable manner.

Achieving sustainable development goals entails risks and costs. Thus, it is essential to define parameters for measuring the sustainability of developing and using AI models. Although in recent years it has attracted much attention, there is still a lack of studies on the deployment, training, and implementation of sustainable AI. In order to analyse the concept of ‘sustainable AI’, it must first be defined. Although there are some definitions proposed, we find the definition put forth by Wynsberghe to be the most comprehensive. She characterizes it as a “field of research that applies to the technology of AI (the hardware powering AI, the methods to train AI, and the actual processing of data by AI) and the application of AI while addressing issues of AI sustainability and/or sustainable development”.

The importance of including those issues has also been on the agenda during the negotiations on the AI Act. The European Parliament advocated for more environmental issues to be included, albeit everything remained within the realm of soft law rules. Consequently, the AI Act encourages providers and deployers of AI systems to adhere to additional guidelines on the trustworthiness of AI systems.

More should be done to understand how to develop and maintain sustainable AI. Sustainable AI must be integrated into the design and monitoring of AI systems throughout their lifecycle. Encouraging and promoting codes of conduct and best practices will be essential. Furthermore, sharing and collecting necessary information will be crucial for the future, along with the development of interoperability standards. Collaboration among all stakeholders involved in the lifecycle of AI systems will be vital for achieving sustainable AI.

Keywords: EU, artificial intelligence, sustainability, sustainable AI.