

Organizational Challenges of the (Local) Water Supply in the European Union Member States

ALEŠ FERČIČ & RAJKO KNEZ

ABSTRACT The authors discuss challenges of water supply in the European Union and the Member States, which mainly refer to local systems. The Member States retain autonomy in the water supply, however European Union general rules, and in particular the competition rules, are used for 'soft' liberalization (and privatization). The authors expose complex public policy issues of water supply; taking into account characteristics of the water sector. The article highlights typical models of the water sector organization with advantages and shortcomings. Dogmatic favouring or ranking of certain models, already at the abstract level, shall be rejected. Authors opt for case-by-case ranking of such organizational models. Dogmatic favouring of private participation and market competition is disputable and a credible discussion shall not be limited only to their advantages but also to their costs and risks.

KEYWORDS: • water supply • natural resources • liberalization and privatization in the water supply sector • water services concessions and competition • (local) public services

CORRESPONDENCE ADDRESS: Aleš Ferčič, Ph.D., Assistant Professor, University of Maribor, Faculty of Law, Mladinska ulica 9, 2000 Maribor, Slovenia, email: ales.fercicum.si. Rajko Knez, Ph.D., Professor, University of Maribor, Faculty of Law, Mladinska ulica 9, 2000 Maribor, Slovenia, email: rajko.knez@um.si.

DOI 10.4335/13.3.765-787(2015)

ISSN 1581-5374 Print/1855-363X Online © 2015 Lex localis (Maribor, Graz, Trieste, Split)
Available online at <http://journal.lex-localis.info>.

1 Introduction

Water supply in the European Union Member States is relatively good and well organized, but our current situation may not infatuate,¹ due to the complex challenges.

Due to worn and insufficient water infrastructure in some places, (too)large-scale water consumption and climate changes with precipitation regime, causing floods and droughts,² it can be assumed that neither with more rational use of water it will not be possible to avoid significant investments in infrastructure. This means even greater cost pressure, which has recently increased at the expense of higher standards introduced to provide better quality of water supply and otherwise to consumer and environmental protection, and what is more, one cannot ignore other obligations imposed to the Member States by the European Union law.³ Besides all this, many Member States are facing serious fiscal imbalances, which cannot be resolved overnight. Due to the above stated there are increasingly strengthened ideas of reforming the existing water supply systems, for example in the direction of (additional) privatization, liberalization or even full commercialization of water supply. It is probably not disputed that the water sector is the last one, where there could be afforded reckless measures. A thorough reflection on the water supply policy, both at the European Union level and at the level of Member States, including also the level of regional and local units,⁴ is required; considering that water supply is traditionally provided by local or decentralized systems respectively.⁵

Complex challenges in the field of water supply, of course, cannot be solved at the local level only, although, as already stated, decentralized local water supply systems dominate in the European Union Member States, but at the same time they certainly cannot be solved without adequate involvement of local communities.

This paper aims to highlight some legal and organizational aspects of water supply and to offer theses that could be reasonably considered in the context of a broader water supply policy discussion. The paper focuses to possible models of organizing the water sector,⁶ which are supported by the corresponding public policy objectives and measures of the European Union and its Member States, naturally by proper allowing for division of powers and their implementation pursuant to the Lisbon Treaty.⁷

Since the credible ranking of these models is only possible with respect to the respective public policy objectives, in this paper (as a starting point for discussion of selected systemic legal issues), a special importance of water (as an essential good) is emphasized. The water supply and characteristics of the water sector follow. The review of the European Union's approaches is also considered, all of

which should be duly taken into account in practice within the respective weighting and deciding which of the possible organizational models is best suited to the respective public policy objectives.

For this purpose, it is first necessary to solve the fundamental question of political-philosophical sign, ie. whether the water should be considered as a classic (market) commodity or natural resource of general interest.

All main methods of research work in the field of the law science are used for the research embodied in the article. A description and a comparison of existing organizational models play important role in this regard; however, also other methods, dealing more deeply with the substantial issues are used, including, inter alia, evaluation and synthesis as a result of thesis and antithesis considerations.

2 Special importance of water and characteristics of the water sector

This chapter discusses some of the fundamental questions in relation to water and water sector, which are the natural basis for assessing the eligibility of individual models of the water sector organization. First, there is presented a special importance of water and its characteristics, which decisively determine the water sector, and after discussing the selected characteristics of the water sector there follows a review of relevant legal rules.

2.1 Water as a natural resource of general interest and essential good

The special importance of water for plants and animal species, and consequently for man and society is undeniable; life is not possible without water. Water is certainly essential for life, without any adequate substitute,⁸ therefore, it is discussed as a natural resource of general interest, in fact as the so called *Essential Good*.⁹

This fact, and of course some other specific characteristics of the water¹⁰ were constantly in mind when in the context of current challenges there were considering the possibilities of the water sector organization.

It is believed that the need of each individual for water should overweight his ability to pay for it,¹¹ so the water should not be provided on the market solely under the classical market mechanisms,¹² but in a way that the public interest in connection with it is adequately protected, ie. with adequate public intervention or regulation.¹³ This means that among possible organization models of the water sector there is automatically dropped out the one which assumes that the water supply should entirely be left to the market forces, as for example is the case for chocolate. This does not *a priori* mean the unacceptability of (additional) privatization and liberalization of the water sector, but this of course applies only

to the point where there is no full commercialization of the water sector. At the abstract level, a relatively wide frame of the water sector organization models is acceptable, and within it in the sense of the first best, second best, etc. one can rank those models only on a case by case basis, based on the fundamental question, namely, which of the potential organization models in the present case can best realize the general or public interest.¹⁴

2.2 Characteristics of the water sector

The characteristics of the water sector must by its nature be taken into account in the water supply policy. At the outset, it should be pointed out that there exists the combination of natural resources and guaranteed customers, while one and the other is not normally associated in a natural way, it is achieved by an artificial link, i.e. by infrastructure and its management. In cases where there is available good quality groundwater, the highest cost is water infrastructure, and in fact this also applies in cases where there should relatively polluted water be properly purified. Infrastructure is therefore a key element,¹⁵ so in those cases where it is already built and in good condition, it is quite difficult to find an objectively verifiable reason for outsourcing of such activities to the private sector.¹⁶ Where the goods already exist (given by the nature) and where customers are virtually all residents, there are in principle ideal conditions to perform business. The main concern of how to get the goods and how to get the buyer, which is generally the key question, is dropped out here. In such circumstances, the water supply seems interesting for everybody, both for the public and private sector. More comprehensible is the transfer of activities or the inclusion of private enterprises, if substantial investments¹⁷ are required, and which the public sector, despite the above stated, objectively cannot meet, or where there is not enough water or is severely polluted. In the latter case the first element is dropped out, since the water, as a naturally given commodity, should be significantly 'processed'. This for example can be done by way of concessions on the national or local level, where there is a shift of risks to the concessionaire. Of course, in this case one can really anticipate that the average concessionaire for the purpose of cost-effective operation and obtaining the desired profit,¹⁸ not only wishes to form the price of water, which will generally be higher than in those areas where the water is sufficient, or is much less polluted, but due to the profits he will often try to limit the disposal of individual sources of water, such as their own wells, rainwater collectors, etc. This circumstance necessarily raises some systemic, in fact the fundamental (constitutional) legal issues, for the solution of which the public interest must certainly be adequately protected, which is only possible if there is at least an appropriate legislative framework and qualified national regulators and grantors provided.

The special importance of water is clearly reflected in the number of horizontal or multi-sectoral laws and regulations, and even more so, of course, in numerous regulations that directly refer to it and to the water sector. Public interest is dominantly reflected in the public service obligations arising from principles such as equal treatment, permanent physical and price affordability, quality and otherwise consumer protection. Undeniably, the main objective of these regulations is effective management of water resources in the function of, *inter alia*, adequate water supply.

However, opinions on the ways to achieve this objective are quite different; theoretically water can be treated as a commodity and its supply can be entirely left to the market and market mechanisms,¹⁹ however, this viewpoint can be opposed because the water should be (also) treated as a social category.²⁰ Prior to deal with models of the water sector organization, which theoretically allows its realization, some dominant²¹ characteristics of the water sector in the European Union Member States shall be highlighted.²²

Water infrastructure gravitates to the state of natural monopoly (cost function is sub-additive) and in combination with its economic irreversibility it causes the so called monopolistic bottleneck,²³ which represents a quite large regulatory challenge (especially at the dominance of vertically integrated systems).²⁴ The water supply sector further characteristics are disproportionately high cost of a single transfer or transport of (drinking) water at longer distances,²⁵ which may explain the predominance of decentralized local systems. If one refers just to the latter, it can be found out that in the water sector operate a large number of companies, but also that everybody is a consumer of water, whereby there is by the nature of things in principle characterized the price inelasticity of demand for water. The price of water is affected by several internal and external factors, therefore, a simple comparison is not suitable, but it requires careful analysis and breakdown of costs to make a credible benchmark assessment²⁶ and on this basis to cope with the relevant costs. Let us emphasise that although a common objective is increasing (cost) efficiency in the water supply in practice, increasing its consumption²⁷ is not the objective in the same time. And finally, within the presentation of the water sector characteristics let us also expose its major impact on other sectors.

Special features and general characteristics of the water sector can be used for the interpretation of the previous development, but even more important is understanding of these particularities in the context of discussions about its future organization, which is closely connected with the question of whether the water sector should also be liberalized according to the already seen scenario, *ie.* the scenario, which the European Union has applied for the sectors of energy, communications, postal services and transport.²⁸

Reform pressures or driving force of changes respectively can be attributed to a combination of several factors,²⁹ especially to the initially exposed costs pressure and business interest of large corporations on the European Union level as well on the national level,³⁰ but a certain weight should be attributed to the general and sectorial technological progress. In addition, one should also consider an important general trend towards modernization of public administration and public sector in the direction of greater transparency, specialization, professionalism and efficiency.³¹

2.3 European Union legal framework

Before starting to deal with the reform pressures and organizational models, let us repeat that the water sector by the nature of things actually falls into different operating areas of the European Union.³² The latter with its rules has already significantly influenced on it,³³ without having to exploit its full potential.³⁴

The European Union rules do not regulate the water supply and do not create a special regime, except for its quality and other standards which relate to water;³⁵ but also, to clearly stressing, it does not regulate the water supply services method, which means that this issue is within the competence of the Member States. The European Union rules also cannot determine the fundamental question of whether the drinking water may be owned by a certain private person or public entity,³⁶ nor whether an activity should be a public service or not. A public service or service of general economic interest is only defined by Member States, but it should in principle be carried out in accordance with the rules of the European Union, in particular with the rules on competition.³⁷

In other words, the Member States have a right to independently define their position on the question of whether the water is a natural resource or natural public good, whether it can be owned by private persons or public entities, or the so called common good, which is not owned by anyone and under the same conditions accessible to all, etc. It is also, for now, on the Member States to decide whether a drinking water supply will be left solely to the market or will be organized as a public service. However, if they decide to transfer the implementation of drinking water supply activities to the private sector, it is necessary to take into account the public procurement rules, the concessions granting rules, and even the rules of competition and transparency of procedures,³⁸ and rules on competition; to the latter especial attention shall be drawn, since they include the state aid rules.

For better understanding, in particular due to a new source, one shall touch upon the *EU Directive on concessions of 2014*.³⁹ Its proposal had foreseen that concessions were awarded for the water supply, which was not a novelty. Concessions for water supply were awarded previously, and even if the proposed

solution was adopted, it would not be a novelty. The Directive on concessions, as it is now accepted, no longer provides this. On the contrary, due to the public pressure (not to privatize the drinking water resources) it has been determined that the Directive shall not be used for drinking water supply.⁴⁰ Thus, according to the proposal, and according to the rules of the adopted Directive, the competence still lies on the Member States and local authorities to decide whether or not water supply is going to be carried out within the public service or as a part of public-private partnership; likewise in the form of a concession relationship. However, it is true that the explicit reference of granting concessions for water supply was unusual in the Directive proposal. By this Directive, despite the above written, there was an increased possibility of granting concessions for water supply. The said provision was also possible to be understood as a (covert) policy of the European Union, which supports the transfer of drinking water supply to concessionaires. One can imagine that such a provision in the Directive could mean an incentive for many local and state governments to decide too early for such a form of drinking water supply. The current regulation in the Directive on concessions emits this, whereby the proposal has reached a certain effect anyway; this effect is seen in the fact that the inhabitants of the European Union Member States should become aware of what means the drinking water supply mode, and the drinking water supply concessional ratios bad practices examples have begun to be analysed. As a consequence, the awareness and the role of the authorities at the local and national level and at the level of the European Union have been taken under the microscope, and simultaneously, the awareness that this is an important systemic issue has increased.

In summary, there remains a considerable autonomy of the Member States and municipalities; for example, they may decide on the property right of water infrastructure and resources and water supply companies,⁴¹ on direct and indirect implementation of water supply services and generally about the model of the organization and institutional support and distribution of jurisdiction, which, as has already been said, does not mean that they can freely award contracts and concessions, subsidies and other forms of state aid, etc.⁴² Hereinafter, one shall focus particularly on the consequences arising from the general competition rules (of the European Union).

3 Reform pressures and the water sector organization models

This chapter presents the core of the paper and due to transparency it is divided into two subchapters. The first deals with a tendency to increase competition in the water sector and with the role of general rules, in particular with competition rules, and then it is followed by a discussion of individual organization models that are used in the water sector and their evaluation.

3.1 Reform pressures for increased competition (and private initiative) in the water sector and the role of general competition rules

Reform pressures in this sector go towards further privatization and 'controlled' liberalization.⁴³ In the short- and medium-term there are possible several scenarios (see Allouche & Finger & Luís-Manso, 2008: 229-236), but given the current situation, it is most likely that at the level of the European Union for now there will be no specific legislative activities by which it would be directly interfered in the issues of privatization and liberalization,⁴⁴ which of course means that on initially presented challenges of water supply the Member States should primarily respond. In this regard Member States actually have, at the principle level, available all the main options.⁴⁵ Here, beating all the options is not the case, but only to expose some general arguments on them. As there recently dominates mainly a dogmatic debate in the direction of the advantages of competition and private initiative, due to the balance some aspects are highlighted that are often ignored or under-emphasized; of course, without intention to define a priori the utmost importance of one or the other organization model, because ranking of organization models at the abstract level is not possible or appropriate respectively.

Any change of the organization model brings certain (transaction) costs⁴⁶ and risks for all the stakeholders, therefore, changes should not have a self-purpose, but should always be implemented only if a credible analysis has shown that they can bring benefit to consumers and generally to the community. In proportion to the openness of the market and a weak or inadequate regulation the power of large companies strengthens, small and medium-sized weaken; one can also expect a gradual strengthening of private participation (as already mentioned, especially in the form of large private companies, often acting across the globe as 'multinationals'). Proportionally to transfer of the water supply activities to the private sector, there is a growing need for regulation in order to effectively prevent undesirable consequences that may be caused by a conflict of private and public interests. In doing so, it is required that the powers are clearly divided among various public authorities, as well as regularly provide an effective disputes settlement mechanism and back-up scenario, if a private supplier or enterprise fails to comply with his obligations, and even more when obligations are unclear, and the water supply suffers. It is precisely that the contractual obligations set out are not clear and demanding enough and generally to the detriment of the public interest; these must be avoided, by well drafted contractual rules, also throughout the effective prevention of corruption, as well as by professional support. It shall not happen, if one caricature, that at the negotiating table there sit the mayor and the municipal clerk and negotiate with a private enterprise, represented by a team of highly specialized field experts. For these cases, on the national level there can be set up a team of experts to assist in the negotiations, where (local) public entities do not have own experts. In models based on competition for the market, it

is considered that the level of (such) competition can be increased by determining a relatively short contract period, which means that the tender competition often takes place, but in this case there should be realistically allowed for that private enterprises will not finance the infrastructure (or at least not in desired extent). This is very important since private financing is, however, a frequent motive of public authorities to introduce organizational changes in the first place.

Irrespective of which model will be chosen by countries or their local communities in a particular case, in principle they will not be able to ignore the existing general legal framework of the European Union, and in particular the rules on competition, which are applied if a specific subject may impact the trade between Member States.

These rules can be used as a tool for 'soft' liberalization if the latter is understood as strengthening of market competition in particular sector,⁴⁷ as for example in principle they prohibit restrictive coordination⁴⁸ among water supply companies, which, for example, is relevant in terms of competition for the market to prevent a coordinated offers (bid-rigging), and generally a mutual exclusion of competition in the market, where the competition is introduced in the water market.⁴⁹ They also prohibit the abuse of a dominant position,⁵⁰ which usually derives from the infrastructure management or from the so called exclusive or special rights, which in themselves are generally not prohibited, but should not be conferred in a way that their implementation would have by their very nature constituted an abuse, as well as in principle would not be awarded for a too long period, because this restricts competition. Let us expose that in recent years the European Commission is very reluctant to such rights, as one can see that in the context of exceptions for public service obligations rarely pass the test of proportionality.⁵¹ Furthermore, competition rules prohibit excessively restrictive and distorting market concentrations, and of course in principle they prohibit granting of subsidies and all other forms of state aid,⁵² which for example come from irrational market behaviour of public authorities in the privatization or sale of public enterprises and other public property, public procurement and concessions, loans, guarantees, insurances, tax benefits, etc. It is estimated that the biggest challenge for public authorities are rules on state aids and rules on exclusive and special rights.

In this regard one should consider, inter alia, that it was exactly the general competition law (in some sectors which recently have undergone a process of liberalization, like for example in the sectors of telecommunications and energy), which in the context of liberalization and its competition-oriented objectives superseded⁵³ the sector specific legislation. This fact certainly reveals the importance and potential of general competition rules, as in reality they can indirectly cause many privatizations of assets or changes of the water sector organization, naturally in terms of strengthening private initiative (and in the light of the fiscal problems of states and local communities this applies even more).⁵⁴

In principle, efforts to support the increase of economic efficiency in the water sector⁵⁵ shall not be detrimental to other objectives, which in this sector should also be taken into account. In other words, the competition policy is important and it can make a positive impact on the water sector, but should not be considered as an isolated system, but rather as part of a broader public policy system, so the public objectives should be adequately reconciled with each other and distinguished between servient and principal or core objectives. It is also necessary to allow for with the fact that probably in the current situation, when in the European Union there are still dominant local water supply systems, where there is responsibility for the implementation of activities and infrastructure in municipalities or other local units, the enhanced introduction of market competition into the implementation of these activities in many places would require a reform of public administration and management of public enterprises.⁵⁶

3.2 Water sector organization models and selection among them

The water sector organization models at the elementary level are divided into public, private and mixed models, which can be classified according to the level of subordination to market mechanisms or competition⁵⁷ respectively and to the regulation degree and mode.

Unlike totally public and private models where dealing with two extreme options, which are relatively transparent as the public or the private sector holds a full responsibility for the implementation of all activities and therewith associated risks, there are a number of mixed models,⁵⁸ which in the light of competition for the market are already quite used, and in the short and medium term they will probably be used even more, especially towards a greater private participation. As to the current circumstances, in the coming years one cannot expect a twist towards the public systems, but rather in the opposite direction. It should be emphasized that this might not be (always) the right way; namely, all depends on specific circumstances of each individual case.

A mixed model with the lowest level of private participation is based on a service contract, where a private enterprise takes over only performance of individual services, everything else, ie. other services, the infrastructure property right, its financing and economic risks remain public; it is usually concluded for a shorter period, up to two years.

In the management contract a private enterprise fully assumes performance of all the services, but nothing else, therefore, the infrastructure property right, its financing and economic risks remain public; it is usually concluded for a period of three to five years.

In a special lease contract a private enterprise in addition to all services takes over a part of the economic risk, while the infrastructure property right and its financing remain public and public sphere also keeps a part of the risk; it is usually concluded for a period of eight to fifteen years.

In a concession contract a private enterprise takes over everything except the infrastructure⁵⁹ property right, which is usually financed, built and managed by himself, of course on his own economic and financial risk, as the return on investment is from operations. However, when a private enterprise additionally enters at least in the role of a co-owner, the joint venture is an appropriate form;⁶⁰ the latter is usually concluded for a period of twenty to thirty years.

Again, it shall be pointed out that in theory there may be differences in terminology or definitions, but in principle one can distinguish between a public procurement and a concession in terms of practice of the European Commission and the Court of Justice of the European Union, including the new package of legislation in this area, which continues to apply that the risk delimitation between public and private sphere is crucial. Likewise, it shall be pointed out that those models do not tell everything, especially not on regulation. Is there a sectoral regulator? If it exists, it is the central or several locals? What is the division of powers between the state and local communities? What is regulated and how?

In this context, one can still notice extremely large organizational differences among Member States. For example, in the German practice in the water supply field there are by far dominated decentralized, local systems, which is probably largely conditioned by its constitutional national regulation (Germany is a federal state with lands, which have their own legislation, fragmenting the water markets), they are under the (local) public control, either directly⁶¹ or indirectly,⁶² whereby let it be additionally pointed out that it has been possible to observe a large number of formal privatizations, but from the perspective of the competition law they do not have any effect, since this law is in principle applied to both public and private companies. However, these formal privatizations, where there is about status transformations, are not just empty shells. Namely, due to the so called corporatization in the water sector, the implementation of water supply services according to the nature of things is placed in more economic frameworks, but simultaneously, there is possible higher transparency and comparability among individual contractors of water supply activities. However, it is more or less clear that the above stated makes the path easier to the material privatization and liberalization.

A somewhat different development and the current situation can be found for example in France, where highly widespread public-private partnerships are in place, and there is about a significant participation of private enterprises (higher than for example in Germany, but at the same time lower than in England and

Wales), and their involvement was strongly conditioned by the fiscal position of individual authorities. The activity implementation transfer into the private sphere requires stricter or different way of control, as in the case of public enterprises. This control here mostly takes place on a contractual basis, not regulatory, which surprises in a way, since it leads to an increased risk if there is no capable decision-makers on the terrain. Of course, this increases the role of regional or local units respectively.

In England and Wales for example, unlike the above stated there has occurred the so called complete or full privatization, while the public interest is provided through intensive centralization and special sector specific regulation. An important moment that it makes sense to highlight here is the new Law on Water, adopted in 2014, so it is difficult to predict how it will work in practice; but here, at least in general can be written that it strongly aims to improve the innovation and adaptation to the consumer, that it anticipates the replacement of suppliers, which in our opinion is a very big challenge that it anticipates a greater compatibility of aquatic systems and cross-border trading with Scotland, it expands powers of the economic regulator for the water sector, ie. OFWAT,⁶³ lays down specific rules for the merger of water supply companies, etc. All the above said makes the path to liberalization easier and consolidates (full) privatization.

A comparison of different models shows that it is not appropriate to rank models for efficiency or suitability in terms of providing general or public interest with respect to water. A frequent standpoint that the effectiveness of the sector is increasing in proportion to the degree of the involvement of private enterprises is empirically difficult to confirm. Many plausible studies have shown that the public systems are equally effective as private ones, especially if they ensure the appropriate management and the so called yardstick competition.⁶⁴ In relation to the competition there can be detected an adequate correlation with the size of companies in the market.⁶⁵ In proportion to the degree of liberalization (and within it without adequate regulation) there can be detected maximum benefits for large companies, which is actually quite logical after Darwin, and of course after Tirole. Therefore, the task of the competent public authorities is to stop the excessive proliferation of companies at the point where their further growth may have impaired the market and servicing the consumers.

Since the Member States or their local self-government units respectively are given a lot of autonomy how to organize the water sectors, and since among organizational models there cannot be a priori ranking (but the best model can be selected for each case separately, by taking into account in particular, but not exclusively, tradition, constitutional norms, position of local self-government, water resources and fiscal parameters), it should be pointed out the sobriety in decision-making and avoid the stampede effect in the direction of (additional) privatization and (uncontrolled) liberalization.

If a particular activity is interesting for private enterprise or for private capital respectively, then it should be considered to have at least as much interest to the public sphere. The opposite is also true, namely, that as far as an activity is not attractive to the private sphere, the public sphere cannot realistically hope for cost effective activities. In other words, if the private sphere sees an interest in the drinking water supply, the public sphere should also see it. Drinking water supply should as a rule give rise to financial gain. To the above-mentioned characteristics of this activity (naturally given good, naturally given clientele), it is to be added that it is also much space for manoeuvres in setting a price for drinking water. The current refund in the Republic of Slovenia is Euro 0.0638 per 1000 litres of water.⁶⁶ Probably, the water is the only product where users are willing to pay more than a thousand times higher price. A typical proof is that for a litre of bottled water for example, purchased in a shop, one will pay a thousand times more than there is the price of drinking water (also per litre), which flows from the tap (while this will often cost more than a litre of petrol). This is on the one hand a simple proof that the price of water can be created in a wide range, and on the other hand that private enterprise can, by marketing of natural resources, gain huge profits. Users, both consumers as well as others, often do not even know what the price of water is; they may have some knowledge for bottled water, but not for the drinking water supply in the operating facilities, apartments and houses. In other words, the drinking water supply, as far as natural conditions are favourable (springs, not too demanding water network) earns an income that will not only cover the cost of operations, but will be much higher.

For this reason, there are cases where holding companies are formed whose purpose is to set a public service that generates profit, covers the loss of other public services or subsidiaries, which create a loss. Namely, certain public services cannot be, by definition, as viable as drinking water supply.⁶⁷ In practice there are also cases where water supply is carried out together with another public service within the same company, such as the waste water management in combination with the drinking water supply. One meaning of this is the same as within the holding; it means that one activity covers the costs of other activities. The cross-subsidization is subject to certain restrictions deriving from the European Union rules, but these rules (in this connection) do not provide an absolute prohibition; therefore, it would not be appropriate if in solving particular cases the aforementioned joining of profit and non-profit activities would a priori be waived.

The activity of drinking water supply, which is left to a private enterprise does not necessarily include the transfer of the ownership over the spring of the drinking water. Only economic exploitation can be transferred and not the ownership of the source. But this is not so important; even if a private enterprise has no property rights over the drinking water source, (and on the other hand it has the right to exploit this source) it can exploit it as an owner. By delivering the drinking water

supply activities to private enterprise, it is functionally achieved a very similar effect as if they were awarded the property right to the source. By this act the public activity is also transferred to a private enterprise, which means that it is the private enterprise, at least in some respects, who in practice acts as an authority. In such a situation there may be cases where the private enterprise pursuing his own private interest which surpasses the usual norms of the drinking water supply and places him o possibility to adopt mandatory conditions to users and to the source (read when it comes to the source: to take different care of the spring than a public contractor⁶⁸). In practice, there are cases where the concessionaires have demanded advance payments for water supply and closed all other accessible sources (pumped from one sources, and banned the use of other sources where people could come to drinking. For example, they banned collecting rainwater, closed various local or town (smaller or larger) springs, etc.). All this has led to an increase in water consumption, which the concessionaires supplied and thereby to an increase of earnings. Likewise, cases are known, where by the use of water, impoundments, etc., they have caused damage to the environment and nature, also with the permission of the public partners. Also, as already stated, a private enterprise acts with the aim to make a profit, therefore, a part of the final price will always include also this element: The generated profit will usually not return to the activity in question, or at least not to the desired extent. Any greater cost-effectiveness of a private enterprise does not necessarily mean lower prices for consumers and the community. If a private enterprise can really provide a lower final price, desired water quality and generally does not impose the aforementioned 'bad' practices, it is naturally reasonable to support water supply by a private enterprise.

In other words, any concession on natural resources means the pursuit of private interest, even though the essence of public goods is pursuit of the public interest. This collision of two interests⁶⁹ can be dangerous, but can also be successfully solved (concessions are known, also in Slovenia, where it is observed that the private interest of concessionaires for the drinking water supply has outweighed the public interest). This, however, largely depends on the conditions under which the grantor awards a concession, so it is a big responsibility in this regard and requires thoughtfulness, not speed, and especially not ideologies, such or others. The fundamental principle, however, should be that the drinking water supply is carried out in the framework of public services. If any public service, then exactly the drinking water supply is the public service, which in the case of appropriate natural conditions (sufficient drinking water for supply) should represent not only a viable business, but also to help other public services. The possibility of granting concessions (also according to the current Directive on concessions this is only a possibility, not a demand) should be an exception, certainly not a rule. Even if there comes to the private capital participation and transfer of public authority, the public partner should precisely specify the conditions for carrying out these

activities, mandatory obligations of the concessionaire, and above all, to allow and ensure free access of the population to other sources of drinking water.

As to the above said, actually, all measures towards enhanced (regulatory) control and transparency shall be supported, regardless of whether there occurs (additional) privatization and liberalization; if it does, however, it is even more in force.

4 Conclusion

At the very beginning of the paper conclusion, let it be pointed out, once again, that one shall not be *a priori* against (additional) privatization and liberalization in the water sector, but due to the reasons mentioned above, a clear determination against the fairly widespread dogmatic maxims, saying that a combination of private participation and competition is a miracle formula for all the challenges in the water sector, is highly welcome. Of course, privatization and liberalization can improve the water supply and, as a consequence, position of consumers but not in all cases; it all depends on the respective circumstances.

The public sphere should in principle, as much as possible, provide for the water supply; only in exceptional circumstances could be justified the transfer of public authority or respective rights and therewith the implementation of this activity into the private sphere. In principle, also the public sphere is capable successfully to perform the water supply, considering, *inter alia*, existence of natural resources, as well as broad consumption (everyone needs it), wide manoeuvring space in determining the price (which among other things can quite realistically enable that the project is funded by itself, deriving from the possibility of fixing different prices depending on the water use, for example for personal urgent use or for luxury, such as domestic swimming pools, or industrial use), etc. Taking into account the above, it is also proper to allow for not inconsiderable costs and real risks when the drinking water supply is provided by private enterprises.⁷⁰

In short, water supply is possible with or without private participation, and with or without market mechanisms or competition. In any case, one shall proceed from its special significance and characteristics of the water sector, with the support of effective public control and regulation. Private enterprises are not *a priori* better water suppliers. It is not essential who carries out the water supply, but how it is carried out. Even if it is carried out by a public supplier, by proper management and normal natural resources of water sources it can be such an activity, which will more easily than any other activity generate greater revenues than expenses. In other words, no system described above can be effective by itself. Both public approach to the supply activity, as well as private, and vice versa, can fail – and both public and private supply activity approach can be successful. Yet, it is less likely in the public supply to occur a collision of private interests in the public

good (which must be used in the public interest) than in models based on the predominant private supply. This is in practice particularly important in countries with low social status of people or poverty, where the predominant presence of the private sector in the water supply often does not turn out to be good.⁷¹ Public good or natural resources should primarily be used for the public interest, while the private interest should be permitted only within that, therefore, actually as a by-product.

Therefore, if the water supply is left to a private enterprise, the public partner must prepare a very tight and effective legal framework (general and specific legislation, concession act and concession contract etc.), which will restrict or control the private interest that the latter will not water-down or even eliminate the public interest. In fact if anywhere, it is precisely reasonable to socialize the economy⁷² in the use of natural resources.

Notes

¹ For information about some of the relevant parameters see for example. European Commission, 2014: 1-4.

Access to drinking water is certainly an appropriate public objective, but access to drinking water should not be taken for granted. Drinking water in times of massive pollution, unsustainable practices and settlement dispersion is not a stable state, but rather labile state, therefore, in practice access to drinking water is in principle subject to appropriately organized permanent activity. The times when it was actually true that the water falls from the sky, are unfortunately past. The natural water cycle is not sufficient; there are required artificial water supply systems. And yet it seems that the average European consumer underestimates or at least does not understand enough the challenges of the water sector (cf. Molyneux-Hodgson & Balmer, 2014: 517).

² The Environment Agency of England and Wales, for example, estimates that in 2050 there will be on the island the total net flow of rivers decreased by 15%, and worrying is the prediction of droughts in summer. Both will be particularly acute in areas that are already a hydrological problem. Gl. Cave, 2009: 5th

³ More about relevant rules of the European Union see *infra*, Section 2.3.

It should also be recalled that according to settled law of the Court of the European Union (see. Eg. The following matters: 6/64, Costa, 1964 ECR 585; 14/86, Walt Wilhelm, 1969 ECR I, 11/70, Internationale Handelsgesellschaft, 1970 ECR 1125; 106/77, Simmenthal II, 1978 ECR 629, C-213/89, Factortame, 1990 ECR I-2433, C-189/01, 2003, I-8055; C-234/04, Kapferer, 2006 ECR I-2585, C-392 and 422/04, Arcor, 2006 ECR I-8559, C-119/05 Lucchini, 2007 ECR I-6228), EU law takes precedence over (the rest of) the law of the Member States. Learn Lenaerts & Van Nuffel, 2011: 754-809; Craig & de Burca, 2011: 256-301.

⁴ In this paper there is not consciously considered the global level.

⁵ Therefore, local communities should be properly included in this discussion together with the remaining stakeholders, whereby there are in mind mainly individuals acting in their capacity as taxpayers and consumers that should for this purpose previously be provided with objective information necessary for a comprehensive understanding of the issues in question.

⁶ Whereby already here it is explicitly pointed out that the European Union in respect of certain other sensitive sectors, such as communications, energy, transport and postal services sectors, rejected the universal (one-size-fits-all) approach, and for each sector separately formed the regulatory framework. However, the above does not mean that the solutions used in other sectors are totally irrelevant in terms of the water sector, but in any case it is necessary to transfer selected solutions from one sector to another sector with the due diligence.

⁷ EU OJ, no. C 306, 17 December 2007, p. 1

⁸ The logical consequence of the water essential importance is a human right to (conforming) water. Prim. UN Economic and Social Council, Committee on Economic, Social and Cultural Rights, 2003: 120-136; European Commission, 2014: 1-13; Kiefer at all, 2008: 1-330; Juen, 2005: 51-69.

⁹ The concept is similar to the concept of Musgrave's merit good; in fact, it can be considered as its extreme or qualified subspecies, essential for life in the biological sense, like air, which also has additional features, namely that corresponds to the concept of public good, because individuals cannot be excluded from the use of air, while the use of air by one does not exclude or limit another, while the water is at the best quasi-public good (cf. Luís-Manso & Finger & Allouche, 2005: 1-2).

¹⁰ There are meant the features that otherwise can also be found in other things, but here they appear in a unique combination. For example, drinking water is not a homogeneous product, in the nature it circulates by itself (and purifies itself, under certain conditions and to a certain extent), it reversibly transits between the physical states, it can be stored, but without proper storage it is relatively quickly perishable. Having previously exposed its essential importance for life and health, one can highlight its impact on other sectors and the economy in general, in short, with the water itself and the activities of water supply it is not appropriate to ignore numerous externalities.

¹¹ Here deliberately is used the term ability to pay, as that it is more appropriate than the concept of willingness to pay, which is prevailingly used in the economic theory.

¹² Although some people consider water as a classic market or economic good, where rare economic resources should be engaged that natural water sources may be available to the consumer in a desired way in terms of quality and form as well as the place and time (OECD, 1987: 18). From this they derive that all costs incurred in connection with this should be paid by users, the price should also be formed by the conventional market rules, which of course brings uncertainty to the individual user in terms of quality and form, as well as the place and time, and this in our opinion is not acceptable.

¹³ Comp. Opschoor, 2006: 424-426.

¹⁴ Allow for the principle of proportionality, and other fundamental (constitutional) legal principles.

¹⁵ Some people in this context highlight the outstandingly high proportion of economically irreversible fixed costs and their overall height. See for example Gordon-Walker & Marr, 2002: 31, 34; Gee, 2004: 38; Luís-Manso & Finger & Allouche, 2005: 2; Ménard & Alexander, 2011: 5.

¹⁶ Nevertheless, some dogmatically arise from the maxim that a combination of private initiative and competitive market is necessarily winning.

¹⁷ Whereby it should be allowed for that in practice such projects are often funded by themselves.

¹⁸ While the public contractors do not carry out the activity primarily for profit; if it is generated, they should in principle invest it back into the system. Some see this fact as a major reason for the lower cost-effectiveness of public contractors in comparison with

private contractors. However, at this it is pointed out that for the consumer the essential is the final price of water (its quality should anyway always be achieved), so in the present case the greater cost-effectiveness of a private enterprise is relevant only if it exceeds its profit margin, otherwise despite higher cost-effectiveness of the private final price of water is higher than the price of the public contractor. At the same time, it is pointed out that it is disagreed with dogmatic thinking, arguing that public contractors are necessarily less efficient than private contractors. It all depends on the specific contractor, therefore, flat estimates are not appropriate.

¹⁹ The main argument is usually greater economic efficiency, while already here is drawn attention to the subcategories of this concept and the trade-off between them. Proponents of the idea that water should be treated as economic goods further highlight the extensive damage allegedly caused by non-economic consideration. It is believed that the economic treatment of water is a route to a more rational use of water and the conservation and protection of water resources. See for example the explanation to the fourth principle of the so called Dublin Statement on Water and Sustainable Development (1992).

²⁰ As such it must be in their view quality and physically affordable for all, which is not the primary objective of a private enterprise, but to this need he should only be committed, and in this context there is often present concern about the erosion of public services and bad regulation, which would not restrain the profit orientation of private enterprise. In other words, where for example water supply is carried out only by public enterprises, there is no constant tendency to look for "holes in the system", which should lead to greater profits, while in systems where the contractors are (also) private enterprise, any deficiency in the regulation in one way or another can exploit to the detriment of users or consumers respectively. Referring to the above said that a certain concern is present also in terms of reduction of employment in the water sector.

²¹ By which it is not claimed that the water sector has no similarity with other infrastructure sectors of socially essential goods. Water supply and water infrastructure in general gravitate to the natural monopoly or monopolistic bottleneck, as is the case for the communications, energy and transport infrastructure; there is possible real competition for the market rather than competition in the market, and in addition there are more similarities.

²² Comp. Ménard & Aleksandra, in: Finger & Künneke, 2011: 310-327; Gee, 2004: 38-40.

²³ More about the concept of monopolistic bottlenecks and issues related to it, see in: Ferčič, 2009: 41-48; Hoffler & Kranz, 2007: 1-13.

²⁴ For more on some aspects of separation and vertical disintegration in the water sector, see Garcia & Moreaux & Reynaud, 2007: 791-820.

²⁵ In the literature, one can find data on ten times as to transmission of electrical energy and twenty times as to the transmission of natural gas. See Gee, 2004: 38.

²⁶ It is in this context that the law of the European Union introduced a common factor, namely the so called principle of cost recovery for water services, including environmental and resource costs associated with damage or negative impact on the aquatic environment, in accordance with the principle of 'pay polluter'. For this purpose, the economic analysis of water services based on long-term forecasts of supply and demand for water in the river basin will be required. 'Full' price on the one hand can really affect the more rational consumption of water, but it is also necessary to ensure its affordability. Of course, the principle of cost recovery for water services can be interpreted as a factor that facilitates the transition to the (more) market-oriented water supply. Details on (potential) consequences of this principle, see for example Gordon-Walker & Marr, 2002: 39-42.

²⁷ For example, in contrast to the communications sector where by a lower price they want to increase the demand.

²⁸ In this connection, there are frequently exposed comparisons with the energy sector. See for example Stern, 2009, 1-25.

²⁹ Comp. Allouche & Finger & Luís-Manso, 2008: 227-229.

³⁰ Due to the characteristics of the natural resources of water resources and the generality of users (all the people in the world), some private corporations have become very large. Even gains despite investments are very large, because the concessions are awarded for a long period of time and often also extended. As explained by Zlobin, 2005: 57, some companies (which are also present in Slovenia, SUEZ, Veolia) have become so powerful that they have a monopoly in certain areas.

³¹ This is among other things seen in the transition from direct to indirect management, first and foremost to public enterprises, which enables that the effective implementation of activities is easier to compare with operations of private companies.

³² Article 4 (2) TFEU provides a list of areas that fall within the shared competence between the European Union and the Member States. The water sector in terms of dealing with almost all areas listed there, but of course only in a way that takes into account the principles of subsidiarity and proportionality in the sense of Art. 5 of the Treaty on European Union (TEU). One should be aware of the fact that all Member States except the island states, divide rivers or other water sources, including rain, which actually carries water across the border, on the other hand, it must not be forgotten that water in one Member State for example is also affected by air pollution crossing the border. All this reinforces the legitimacy of common supra-national measures.

³³ There are particularly exposed the rules that determine water quality standards and protection of water resources and generally management of these resources. In this area, the objectives are relatively uniform, measures remain relatively decentralized. Likewise, here is explicitly pointed out that the rules do not provide for a mandatory water sector organization or property issues and structures, although on the other hand it is true that the rules of the internal market, including general rules of market competition, can have an impact on the water sector, as shown below.

At the same time, there is pointed out significant public opposition to the proposal of the Directive on concessions, which provided for the possibility of granting concessions for the drinking water supply.

³⁴ Unlike some other infrastructure sectors such as energy, transport, communications and postal services, the water sector is not yet subject to (special) liberalization (rules).

³⁵ See for example Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, Official Journal L 330, 12/05/1998 p. 32-54.

³⁶ See Art. 345 TFEU.

³⁷ See Art. 106 TFEU.

³⁸ See Art. 56 TFEU. This provision governs the free management of services in the internal market, its interpretation goes back so far that it is necessary, in concessions or other means of public-private partnerships, including public procurement, to allow for the rules described above. Although the freedoms of the internal market require international or European element, the interpretation of the application of Art. 56 TFEU is quite broad. Namely, in the event that a certain right from the public sector is granted to the management of a private enterprise without any possibility of previous competition, process openness, transparency, then it is considered that potential bidders also from other Member States, had no opportunity to be informed about it and with this the international or European element has been disabled.

³⁹ Directive 2014/23 / EU of the European Parliament and of the Council of 26 February 2014 concerning the award of concession contracts, OJ L 94/1.

⁴⁰ See Art. 12 of the Directive.

⁴¹ TEU and the TFEU in accordance with Art. 345 TFEU do not interfere with the system of property ownership in the Member States.

⁴² Comp. Allouche & Finger & Luís-Manso, 2008: 224.

⁴³ It seems that the (full) commercialization has no particularly broad range of defenders.

⁴⁴ At this point, one welcomes this option since the liberalization of the water sector itself should not be the ultimate objective, but rather a tool, and what is more, in given the circumstances its net effect would be highly questionable. At the same time the attention is drawn to the sensitivity of the subject and different traditions that the harmonization and further unification with the aim of liberalization would hardly maintain. The current general rules are enough at this point.

About possible implementations of liberalization see for example Kraemer at al, 2003b: 25-68.

⁴⁵ That is to say, keeping of the existing system or move into more or less market competition and / or private participation. For details see for example Luís-Manso & Finger & Allouche, 2005: 2-7; Allouche & Finger & Luís-Manso, 2008: 229-236.

⁴⁶ Expenses incurred before, during and after the contractual relationship should be properly allowed for in the economic efficiency of a private enterprise.

⁴⁷ According to our understanding, more market competition eventually leads to more private participation.

⁴⁸ In principle, agreements, decisions by business associations and concerted practices are banned; See Art. 101 TFEU.

⁴⁹ Competition *for* the market is already relatively strongly present and it means less interference into existing systems such as the introduction of competition *in* the market. More on typical elements and prerequisites of the market competition in the water sector see Gordon-Walker & Marr, 2002: 45-53.

⁵⁰ See Art. 102 TFEU.

⁵¹ Of course, the exception for public service obligations or services of general economic interest can in principle be used to 'cure' all practices which are in principle prohibited under the general rules, provided they meet strict conditions for exemption. In other words, any system of introducing or strengthening competition should include consideration of the specific situation of public services.

⁵² See Art. 107 (and 106(2), 108 and 109) TFEU.

It is believed that it would be in practice probably the most painful precisely the consistent implementation of the rules on state aid, particularly at the local level. For more information see Ferčič & Samec, 2014: 267-287.

⁵³ This is not meant literally, as specific sector legislation continues to exist and is an important part of the existing system, but the European Commission pragmatically realizes the liberalization objectives by means of general competition rules.

⁵⁴ About the typical cases of the private equity inclusion see Gordon-Walker & Marr, 2002: 30.

⁵⁵ Economic efficiency is by no means a unique concept, covering production, allocation and innovation efficiency, among which one observes trade-off, and in principle the conflict increases in relation to social, environmental and other non-economic objectives. In recent years, in the light of the so called more economic approach one observes dominance of economic efficiency, at least in the area of the so called antitrust, and a bit less in the field of state aid, which is of course to the detriment of other objectives.

⁵⁶ Comp. Gordon-Walker & Marr, 2002: 94

⁵⁷ In addressing this problem set it is difficult to avoid the terms, such as privatization, liberalization and (full) commercialization, which are not yet fully purified and are (too) often used inconsistently, and therefore, due to the interests of transparency they are defined briefly as follows directly below.

- Privatization. It is understood as any form of transfer (implementation) of public authorities or public law activities and / or of private rights, which takes place in the direction from the state or other public entity to one or more natural persons or legal persons of private law, with regard to the latter pointing out that there may be 'genuine' private law entities in which there is no public participation, or 'non-genuine' private law entities in which there is present public participation (eg. stock corporation, in which the shareholder is the state or local public authority). Depending on what is transmitted, ie. what is the subject of privatization, one distinguishes between privatization of activities and privatization of assets, while in the context of status transformations one distinguishes between the organizational (formal) privatization and substantive (material) privatization.

- Liberalization. In the narrow sense, it is perceived as a pro-competitive deregulation, ie. reduction of rules for the existence of legal monopolies and oligopolies, whereby it is primarily thought of as reduction of exclusive and special rights within the meaning of Art. 106 (1) TFEU, while liberalization in a broad sense it is perceived as a combination of pro-competitive deregulation and pro-competitive regulation, where the aforementioned deregulation is followed by the regulation, which actually allows the creation of market competition in the earlier 'closed markets', where there is primarily meant to provide network access, proper compensation for the use of (network) infrastructure and unified standards (especially firmware). Liberalisation is therefore a long-term process which aims to transform of non-competitive or non-contestable markets into (more) competitive or contestable markets.

- (Full) Commercialization. It is perceived as a (full) waiver of certain activities to private initiative and economic laws without maintaining public control (this does not mean that there is no classic authoritative control in the context of the rules implementation of tax law, consumer law, etc.).

Comp. Kraemer at al., 2003a: 14-16.

⁵⁸ Comp. Ménard & Aleksandra, in: Finger & Künneke, 2011: 319; Gordon-Walker & Marr, 2002: 54-56; Wackerbauer, 2008: 5.

⁵⁹ Despite the fact that is not even necessary.

⁶⁰ However, in this context, the attention is drawn to the non-uniform terminology or definitions, which lead to confusion. Indeed, some even in this case speak of the concession contract, some even about public-private partnership (it is disagreed with the latter, while today the concept of public-private partnership in most Member States of the European Union has a broader meaning, in fact, it could be used for (almost) all mixed models).

⁶¹ Through service units.

⁶² Through (equity) companies, in which local units have dominant influence on the basis of equity participation or otherwise.

⁶³ It should also be allowed for other bodies, executing non-economic control and inspection.

⁶⁴ More about this concept Shleifer, 1985: 319-327.

⁶⁵ And earlier pointed out private participation, which in our opinion in conditions of increased competition it increases over time.

⁶⁶ Decision on defining the amount of water refund for the water use, debris and water land in 2015, Of. G. of RS, no. 64/2014.

⁶⁷ An example of a holding company (in Slovenia) for instance is the Ljubljana holding.

⁶⁸ Eg. over-exploitation, rules suspension of the source restoration, unnecessary reductions or absence of reductions when necessary, etc.

⁶⁹ See also Prasad, 2006: 669-692.

⁷⁰ Developments in South America additionally strengthen our conviction in this.

⁷¹ See also Prasad, 2006: 688, Lobina, 2005: 55-87.

⁷² See Rizman, 2015: 5; meaning of adhere more economic activities to the public sphere.

References

- Allouche, J., Finger, M. & Luís-Manso, P. (2008) Water sector evolution scenarios: the case of Europe, *Water Policy*, 10(3), pp. 221-238, doi: 10.2166/wp.2008.149.
- Cave, M. (2009) *Independent Review of Competition and Innovation in Water Markets, Final Report* (London: Defra).
- Craig, P. & Gráinne, D. B. (2011) *EU Law: Text, Cases, and Materials*, 5th edition (Oxford: Oxford University Press).
- European Commission (2014) *Communication from the Commission on the European Citizen's Initiative 'Water and Sanitation are a Human Right! Water is a public good, not a commodity!'* (Brussels: European Commission).
- European Commission (2014) *The EU Water Framework Directive* (Brussels: European Commission).
- Ferčič, A. & Samec, N. (2014) European Union state aid law and policy, and local public services, *Lex localis - Journal of Local Self-Government*, 12(2), pp. 267-287, doi: 10.4335/12.2.267-287(2014).
- Ferčič, A. (2009) Ekonomska teorija in ex ante regulacija, *LeXonomica*, 1(1), pp. 33-50.
- Finger, M. & Künneke, R. W. (2011) *International Handbook of Network Industries: The Liberalization of Infrastructure* (Cheltenham: Edward Elgar Publishing Limited).
- Garcia, S., Moreaux, M. & Reynaud, A. (2007) Measuring economies of vertical integration in network industries: An application to the water sector, *International Journal of Industrial Organization*, 25(4), pp. 791-820, doi: 10.1016/j.ijindorg.2006.07.009.
- Gee, A. (2004) Competition and the water sector, *Competition Policy Newsletter*, 10(2), pp. 38-40.
- Gordon-Walker, S. & Marr, S. (2002) *Study on the application of the competition rules to the water sector in the European Community*, Final Report (Wiltshire: WRc & Ecologic).
- Guasch, J. L. & Straub, S. (2006) Renegotiation of infrastructure concessions: an overview, *Annals of Public and Cooperative Economics*, 77(4), pp. 479-493, doi: 10.1111/j.1467-8292.2006.00316.x.
- Höfler, F. & Kranz, S. (2007) Imperfect Legal Unbundling of Monopolistic Bottlenecks, *Bonn Econ Discussion Papers*, No 16/2007, pp. 1-13.
- Juen, G. (2005) Trading Rights: A Human Rights Perspective to Water Service Liberalization in the Framework of the General Agreement on Trade in Services (GATS), *Brussels Journal of International Studies*, 2(1), pp. 51-69.
- Kiefer, T., Winkler, I., Cacciaguidi-Fahy, S., Pestova, P., Khalfan, A., Fairstein, C. (2008) *Legal Resources for the Right to Water and Sanitation: International and National Standards*, 2nd edition (Geneva: Centre on Housing Rights and Evictions).
- Kraemer, A. R. (2003a) *Water Liberalisation Scenarios: Analysis of the European Union's Explicit and Implicit Policies and Approaches in the Larger Water Sector* (Berlin: Ecologic institute), available at: http://www.ecologic.de/download/projekte/1950-1999/1977/1977_d1_final.pdf (February 9, 2015).

- Kraemer, A. R. (2003b) *Water Liberalisation Scenarios: Identification and description of plausible water liberalisation scenarios* (Berlin: Ecologic institute), available at: http://www.ecologic.de/download/projekte/1950-1999/1977/1977_d5_final_report.pdf (February 9, 2015).
- Lenaerts, K. & Van Nuffel, P. (2011) *European Union Law*, 3rd edition (London: Sweet & Maxwell, Thomson Reuters).
- Lijin, Z., Arthur, P. J. & Mol, T. F. (2008) Public-Private Partnerships in China's Urban Water Sector, *Environmental Management*, 41(6), pp. 863–877, doi: 10.1007/s00267-008-9070-1.
- Lynk E. L. (1993) Privatisation, joint production and the comparative efficiencies of private public partnership: The UK Water Industry Case, *Fiscal Studies*, 14(2), pp. 98–116, doi: 10.1111/j.1475-5890.1993.tb00482.x.
- Lobina E. (2005) Problems with Private Water Concessions: A Review of Experiences and Analysis of Dynamics, *Water Resources Development*, 21(1), pp. 55–87, doi: 10.1080/0790062042000313304.
- Luís-Manso, P. & Finger, M. & Allouche, J. (2005) *The evolution of the water sector in Europe: an institutional analysis of possible scenarios*, MIR-REPORT-2005-003 (Lausanne: Ecole Polytechnique Fédérale de Lausanne).
- Molyneux-Hodgson, S. & Balmer, A. S. (2014) Synthetic Biology, water industry and the performance of an innovation barrier, *Science and Public Policy*, 41(4), pp. 507–519, doi: 10.1093/scipol/sct074.
- Opschott, J. B. H. (2006) Water and merit goods; In response to the paper by Marco Schouten and Klaas Schwartz, “Water as a political good: implications for investment”, *International Environmental Agreements*, 6(4), pp. 423–428, doi: 10.1007/s10784-006-9013-3.
- Organization for Economic Development and Cooperation (1987) *Pricing of water services* (Paris: OECD).
- Prasad N. (2006) Privatisation Results: Private Sector Participation in Water Services After 15 Years, *Development Policy Review*, 24(6), pp. 669–692, doi: 10.1111/j.1467-7679.2006.00353.x.
- Rizman, R. (2015) Kako zavarovati skupno dobro, *Delo*, (7.1.2015), p. 5.
- Shleifer, A. (1985) A theory of yardstick competition, *Rand Journal of Economics*, 16(3), pp. 319–327, doi: 10.2307/2555560.
- Stern, J. (2009) Introducing Competition into England and Wales water industry: Lessons from UK and EU energy market liberalisation, *Discussion Paper Series: CCRP Working Paper No: 13* (London: City University, Department of Economics).
- UN Economic and Social Council, Committee on Economic, Social and Cultural Rights (2003) *Report on the Twenty-Eight and Twenty-Ninth Sessions* (New York: United Nations).
- Wackerbauer, J. (2008) Public or Private Water Management: Experience from different European Countries, XXIVth Conference of the Danubian Countries, *IOP Conf. Series: Earth and Environmental Science*, 4(2008), pp. 1–9, doi: 10.1088/1755-1307/4/1/012037.