

# **Implementation Monitoring Report of the Network Code on Interoperability and Data Exchange Rules**

## Contents

1. Introduction .....	3
2. Executive summary .....	3
3. Detailed views of responses .....	5
3.1. Interconnection agreements .....	5
3.2. Units.....	20
3.3. Gas Quality.....	22
3.4. Data exchange .....	30

## 1. Introduction

The Network Code on Interoperability and Data Exchange Rules (INT NC) was developed by ENTSG (European Network of Transmission System Operators for Gas) on the basis of a draft developed by ENTSG and recommended by the Agency, in accordance with the procedure set out in Article 6 of Regulation (EC) No 715/2009. Its aim is to encourage and facilitate efficient gas trading and transmission across gas transmission systems within the Union, and thereby to move towards greater internal market integration.

The Network Code was approved by the EU Gas Committee on 5 April 2015 as Commission Regulation (EU) No 2015/703. The implementation date was 1 May 2016 with the exception of Article 5.

Pursuant to Article 8(8) of Regulation (EC) No 715/2009, as well as to Article 25 of the INT NC, ENTSG monitors the implementation of the Network Code.

By 31 July 2016, transmission system operators (TSOs) provided ENTSG with the necessary information allowing the fulfilment of its monitoring and reporting obligations.

Thus, this report on implementation monitoring of the INT NC presents an overview of the implementation of the different Articles of the INT NC by TSOs on both sides of interconnection points (IPs) in the European Union. In addition, conclusions about the implementation status are drawn. This report provides detailed information through an article-by-article analysis.

## 2. Executive summary

Following AWP 2015 and to fulfil the monitoring obligations envisaged in Article 25 of the INT NC, ENTSG members provided their responses to a questionnaire agreed by ACER and ENTSG, which was divided into two different sections according to the type of question: general and interconnection-point specific.

The data provided by 39 TSOs has been used as the basis for this report on implementation monitoring of the INT NC.

Two TSOs (ENTSG members) are subject to Article 1 (3) ("Regulation shall not apply to interconnection points between Member States as long as one of these Member States holds a derogation on the basis of Article 49 of Directive 2009/73/EC"). Three TSOs do not have CAM-relevant IPs with adjacent TSOs and one TSO has an IP only with a non-EU country.

Based on the replies from participating TSOs, the report shows that the majority of interconnection points (IPs) are covered with interconnection agreements (IAs) between adjacent TSOs. Results indicate that, in the signed IAs, the adjacent TSOs agreed on the main terms and conditions foreseen in the INT NC. In the vast majority of agreements, the lesser

rule is implemented as the matching rule and the operational balancing account (OBA) is widely used as the allocation rule.

Regarding measurement principles in the IAs, the majority of them take already into consideration the provisions of the INT NC.

Chapter IV of the INT NC covers gas quality and odourisation issues and prescribes instruments for managing cross-border trade restrictions due to differences in terms of gas quality or odourisation practices. According to the results, no cross-border trade restrictions due to differences in gas quality or odourisation practices that cannot be avoided by mutual cooperation between TSOs have been detected.

More than 83% of the TSOs are publishing on their websites Wobbe Index (WI) and Gross Calorific Value (GCV) for each Entry IP once per hour.

The majority of TSOs have implemented or are in the progress of implementing one or more of the common data exchange solutions for Nomination and Balancing processes and CAM/CMP processes. In addition to the common solutions, 82% of TSOs have advised that existing solutions are staying in place.

Detailed figures and clarifications are provided in Chapter 3 of this report.

As it can be seen from the graphs, not all mandatory terms (Art. 6 to 12 INT NC) relevant for IAs have been incorporated into IAs between adjacent TSOs. This is especially the case where IAs are agreed upon on the basis of the ENTSOG template for the conclusion of IAs according to Art. 5 Regulation 2015/703 (INT NC). In case IAs are based on the ENTSOG template these IAs can be seen as being equivalent to the IAs explicitly covering Art. 6 to 12 INT NC.

### 3. Detailed views of responses

The questionnaire was composed addressing the requirements of each article of the INT NC.

The questionnaire consists of two parts (general questions and IP specific) to assess the implementation of the INT NC by the European TSOs. The survey has been conducted by ENTSOG and sent to ACER as foreseen by the INT NC.

The IPs connecting to non-EU countries have been excluded. Nevertheless some TSOs provided information that IAs with implementation of majority of INT NC provisions were signed with adjacent TSOs from non-EU Member States.

Most of questions were assessed for IPs while some were addressed more generally (e.g. data exchange), as a detailed assessment would not have yielded significant differences.

#### 3.1. Interconnection agreements

##### Article 3: Does the IP have a signed IA in place?

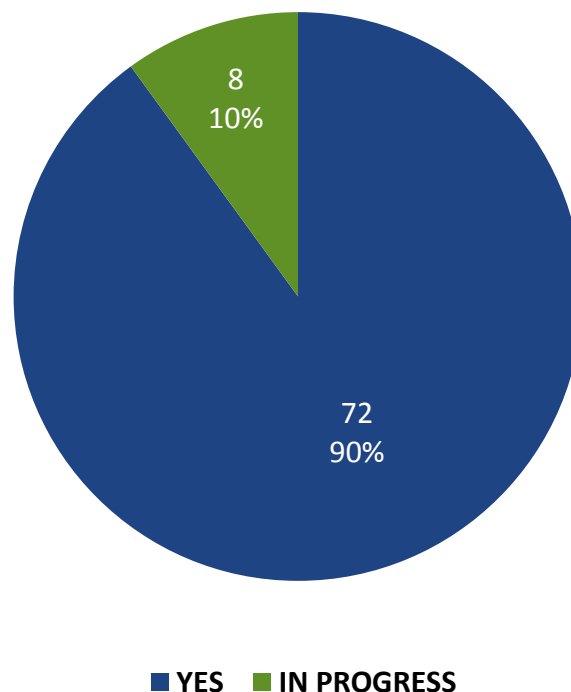


Figure 1. Article 3, Interconnection Agreements on IPs

Of the analysed 80 IPs, 90% (72 IPs) have an IAs in place, while the remaining 10 % (8 IPs) are in progress for signing.

It shall be noted that only CAM relevant IPs were covered. IPs between two entry-exits zones operated only by one TSO and IPs that disappeared from commercial offer and therefore are not subject to booking procedures anymore were not included in the diagram and in the analysis, as well as IPs between TSO and DSO or TSO and SSO grids are connected.

It should also be mentioned that one IP (IA is not signed) has never been in operation and the adjacent TSOs are in the preparation phase of completing and signing the IA.

These 72 IPs covered with IAs are further analysed in the report.

### Article 3: Terms covered by the IA?

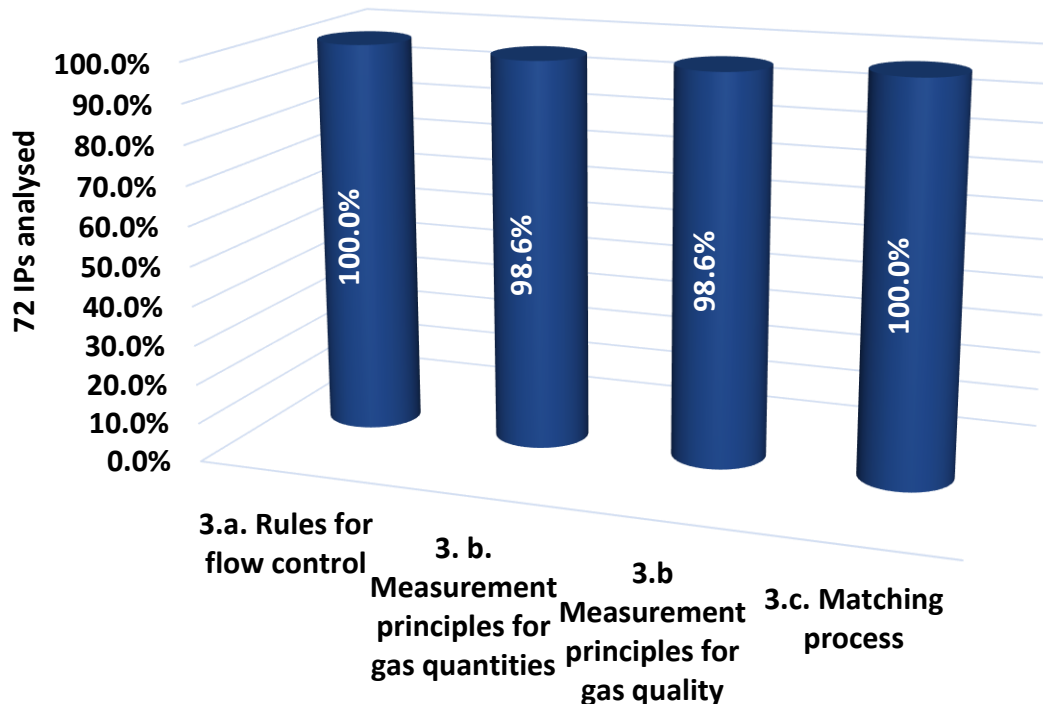


Figure 2. Overview of Article 3 (a), (b), (c) implementation

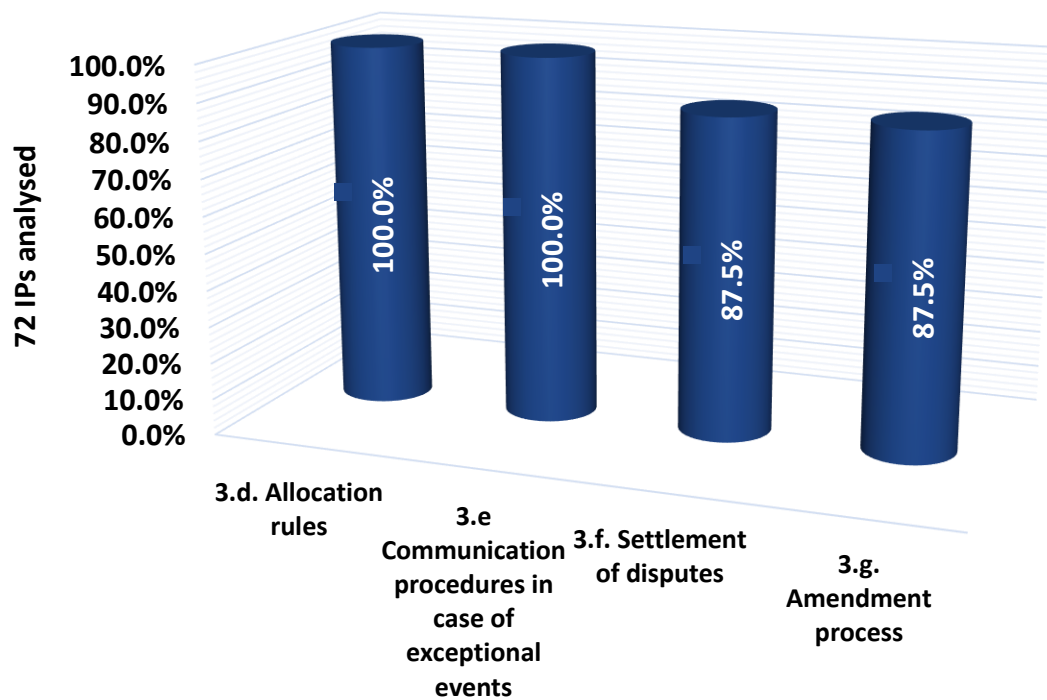


Figure 3. Overview of Article 3 (d), (e), (f), (g) implementation

The graphs above show the progress made regarding mandatory terms currently covered by the IAs.

Provisions of Article 3 (a), (c), (d) and (e) are fully covered in IAs. Provision (b) is not covered on one IP. Provisions (f) and (g) are missed in 12.5% of IAs. Nevertheless in these cases according to Art.11 the rules of the European regulations on jurisdiction and the recognition and enforcement of judgment and on the law applicable to contractual obligation will apply.

#### Article 4: Information obligations

TSOs were asked to provide their responses to several questions regarding their information obligation.

According to the replies received from the TSOs, in more than 81% of cases Network Users were informed about the provisions of IAs that have direct impact on them.

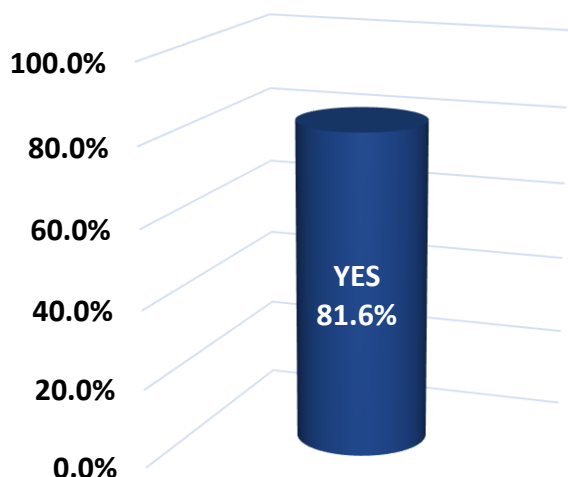
More than 87 % of TSOs have established an internal procedure to inform ENTSG within 10 days in case IA changes.

Low percentage of affirmative answers to the question related to Article 4 (2) is comprehensible as the majority of IAs were signed before the INT NC came into force, therefore TSOs were not obliged to execute the INT NC provisions.

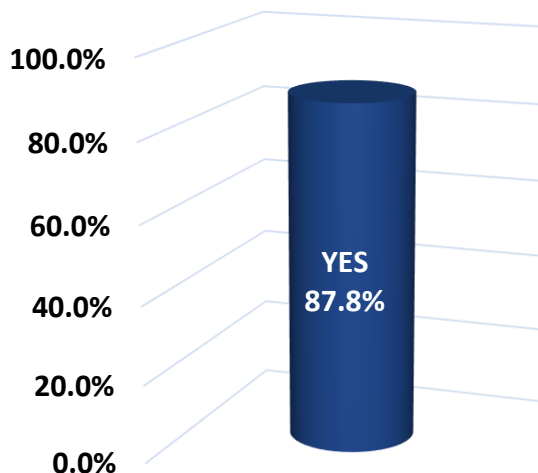
Only in around 24.5% of cases the NRA asked for the submission of the IAs.



**A** Have you identified information contained in IA that directly affects NUs and informed them?



**B** Have you ensured internally that if an agreement is concluded or amended the relevant terms are sent to ENTSG within 10 days?



**C** Since application date of the INT NC and before concluding or amending an agreement, have you invited network users to comment on the proposed text for

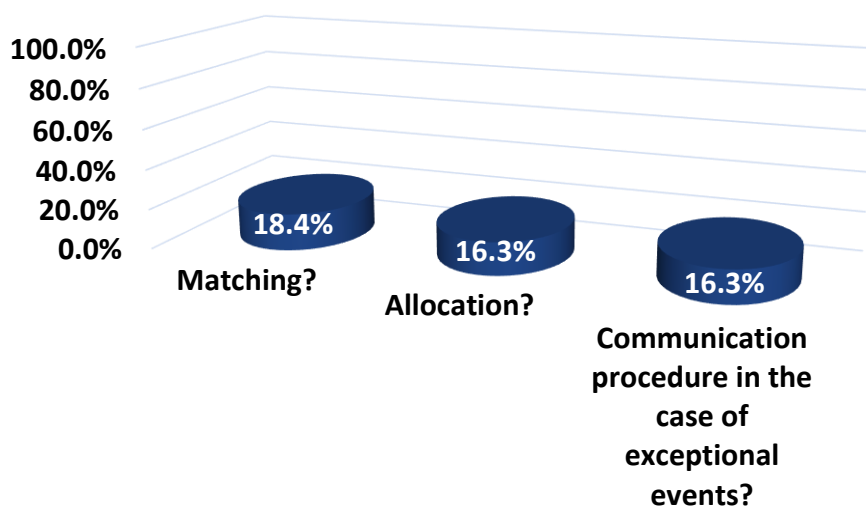


Figure 4. Overview of Article 4 paragraph 1 (A), paragraph 2(C), paragraph 3 (B) implementation

### Have the NRAs asked for a submission?

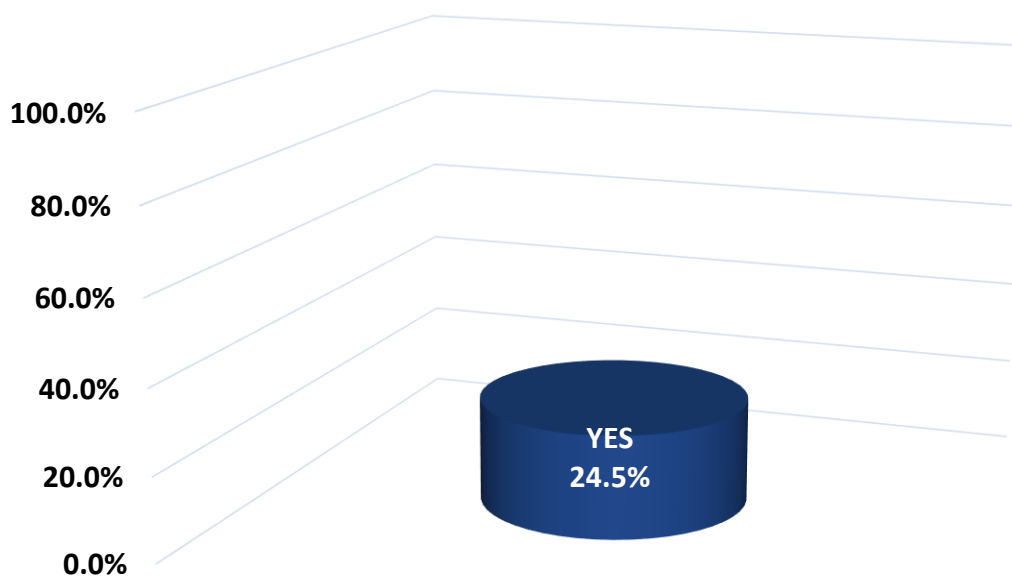


Figure 5. NRAs and submission

**Article 6: Have the following topics been taken into consideration regarding flow control rules?**

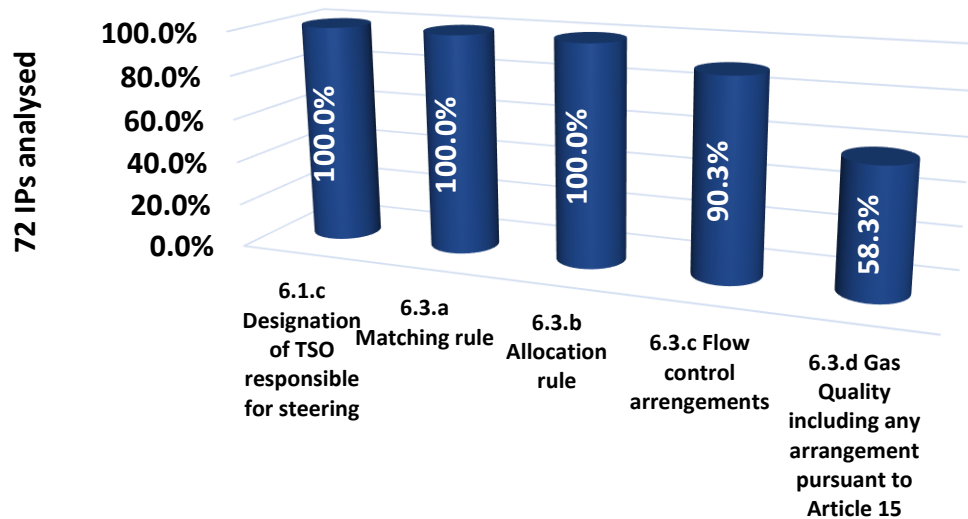


Figure 6. Overview of Article 6 implementation (part 1)

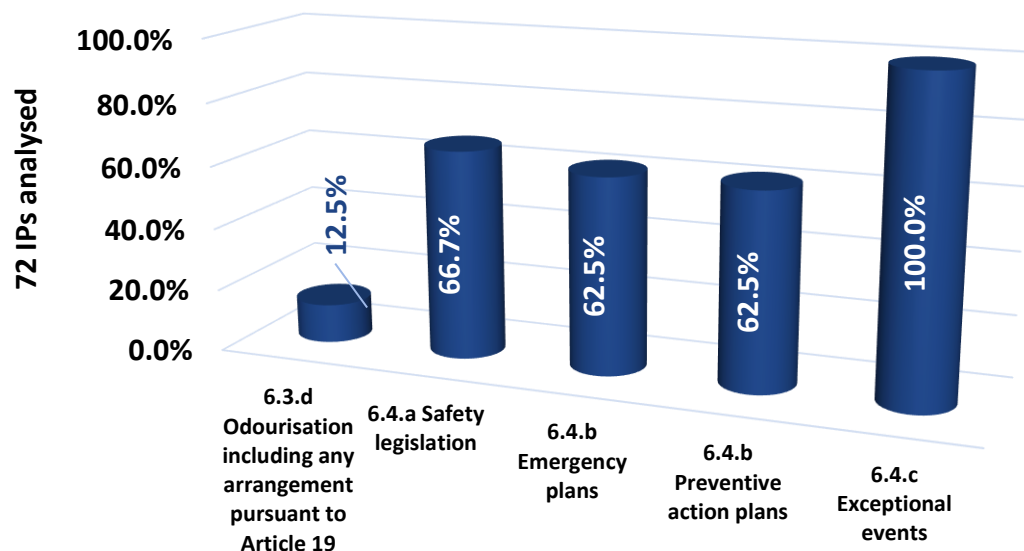


Figure 7. Overview of Article 6 implementation (part 2)

The analysis of the respondents' answers shows that the adjacent TSOs agreed on the majority of the business rules. At the same time, it can be observed that arrangements to manage gas quality and "odourisation" restrictions are not included in all IAs. Only if there were gas quality and/or odourisation restrictions the agreed arrangements pursuant to Article 15 and/or Article 19 would need to be referred to in the flow control rules.

Additionally it needs to be stated that some IPs are connecting points within one country and therefore they are not subject to article 15 and 19 of the INT NC as gas quality specification and odourisation practices are the same

**Article 7: Regarding measurement principles on the IA, are the following topics or principle addressed?**

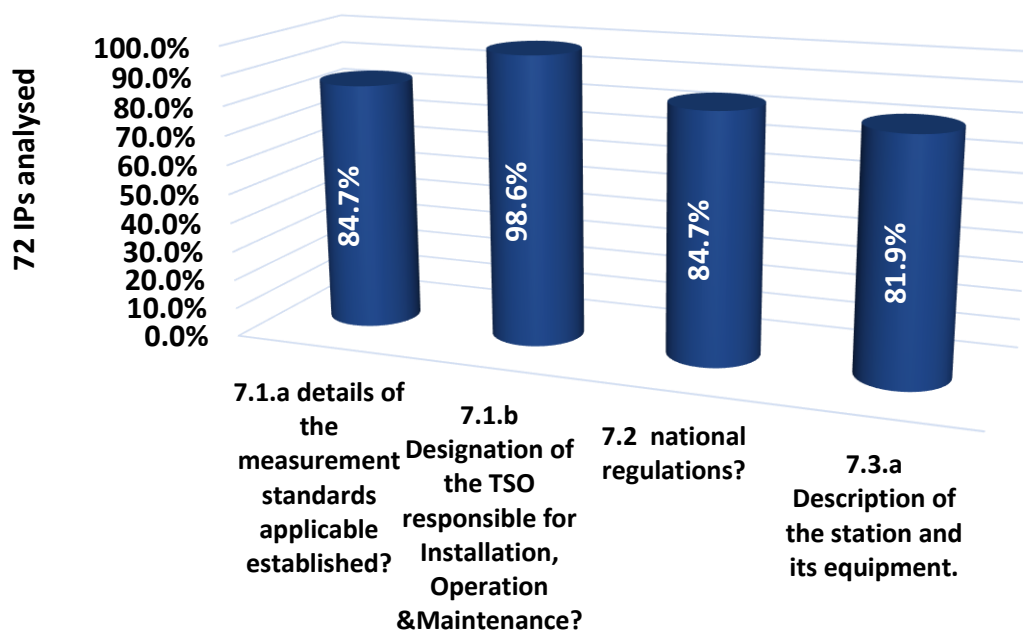


Figure 8. Overview of Article 7 implementation (part 1)

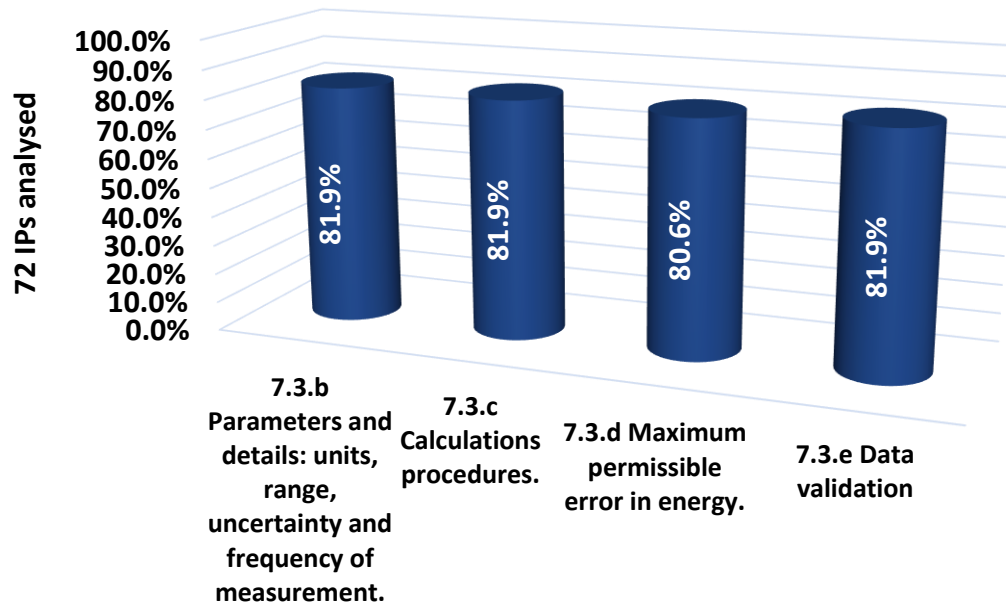


Figure 9. Overview of Article 7 implementation (part 2)

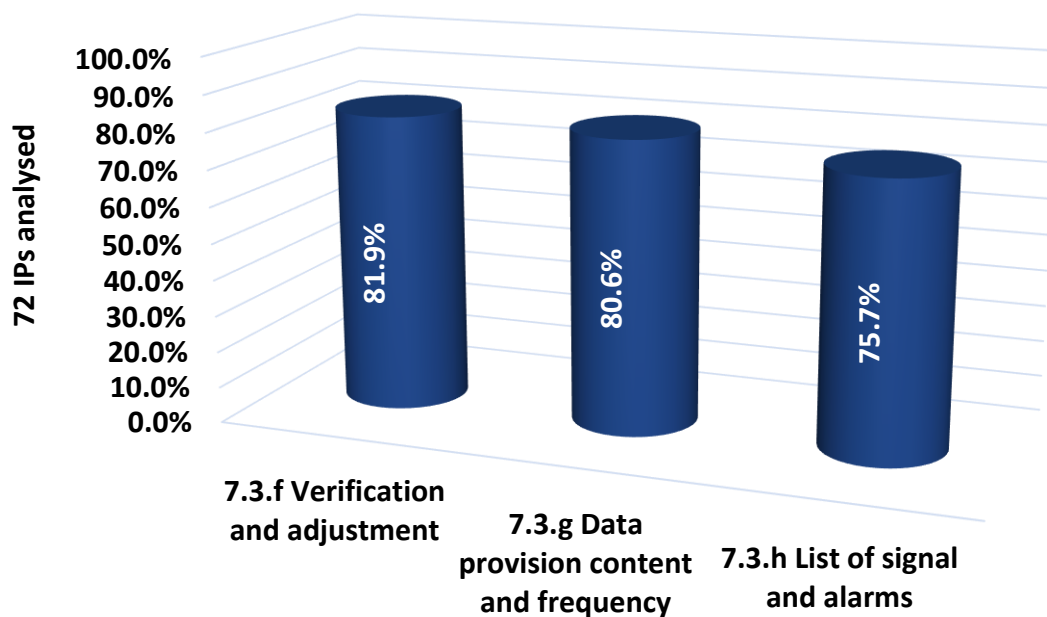


Figure 10. Overview of Article 7 implementation (part 3)

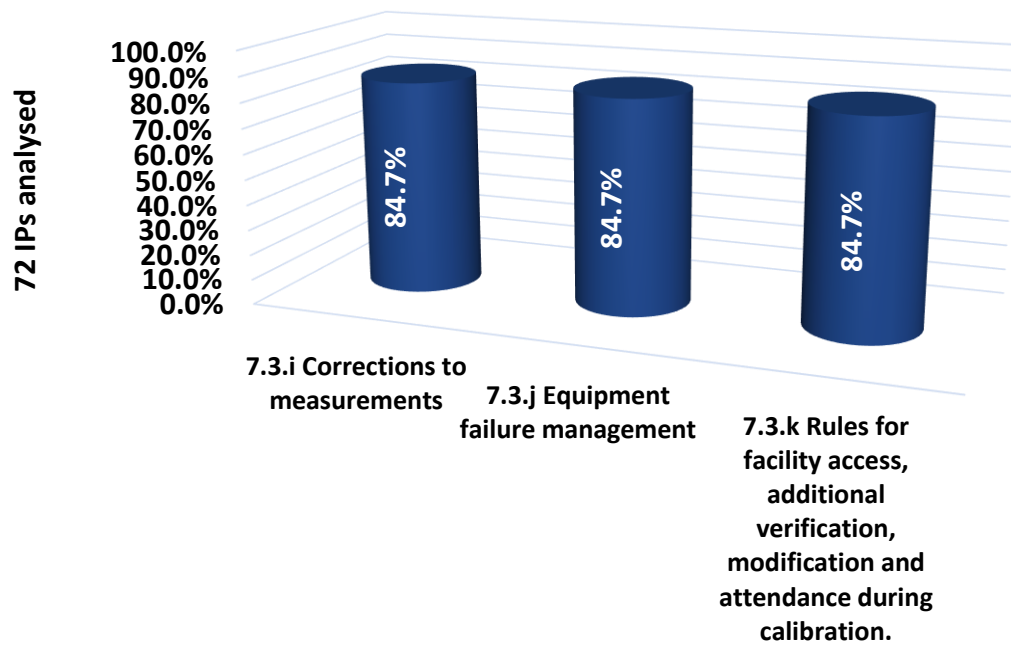


Figure 11. Overview of Article 7 implementation (part 4)

In the majority of IAs the main measurement principles are currently covered, while in the remaining IAs these topics are in progress.

## Article 8: Rules for matching process

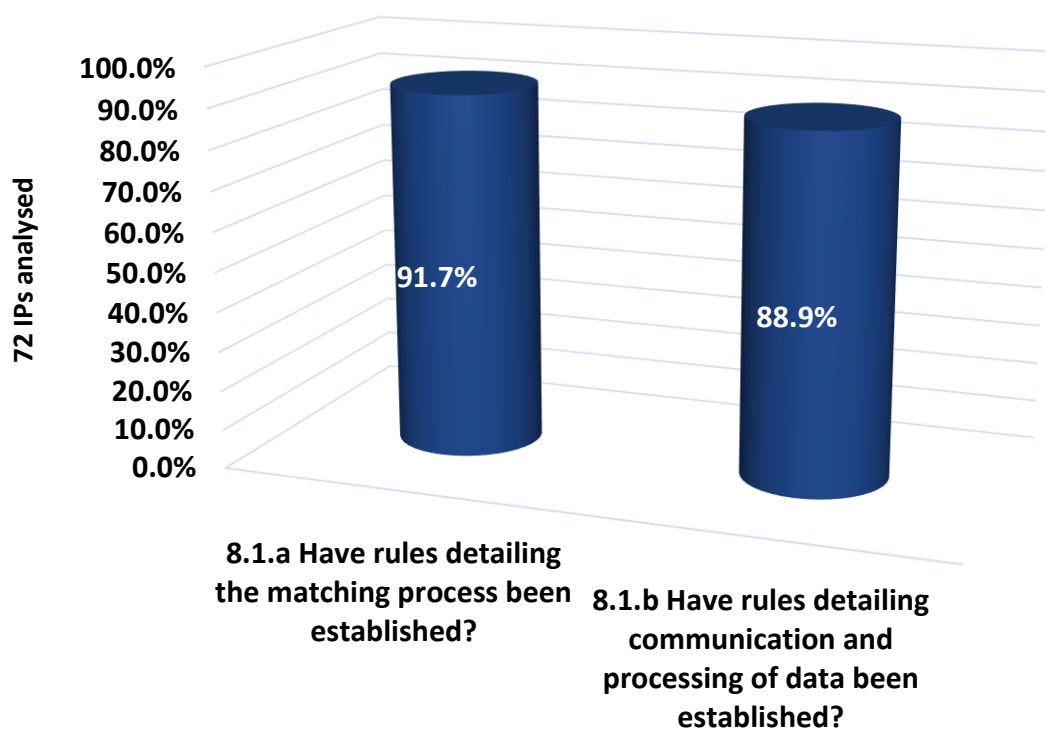
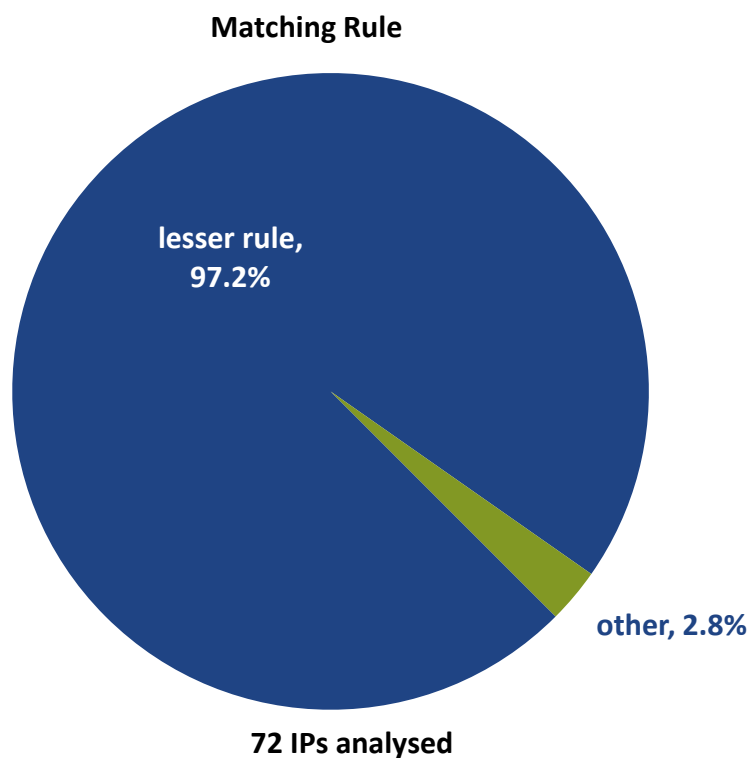


Figure 12. Overview of Article 8 paragraph 1 implementation



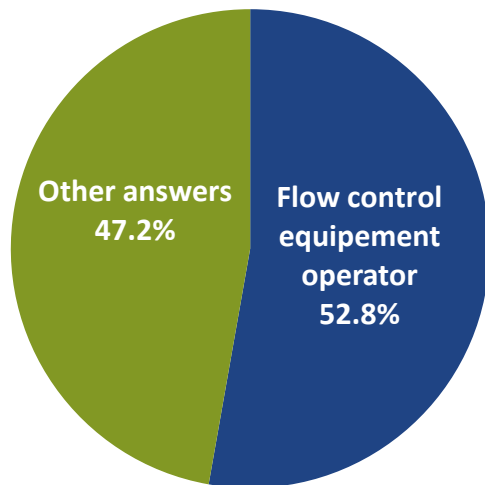
*Figure 13. Article 8. Matching rule*

The majority of TSOs have confirmed that matching rules, rules for communication and processing of data are established in the IAs.

Article 8(5) a) of the INT NC sets out the application of the lesser rule as matching rule by default. 70 IPs (97.2 %) are being operated under this principle. In two cases TSOs agreed to use the processed quantities determined by one of them as confirmed quantities.

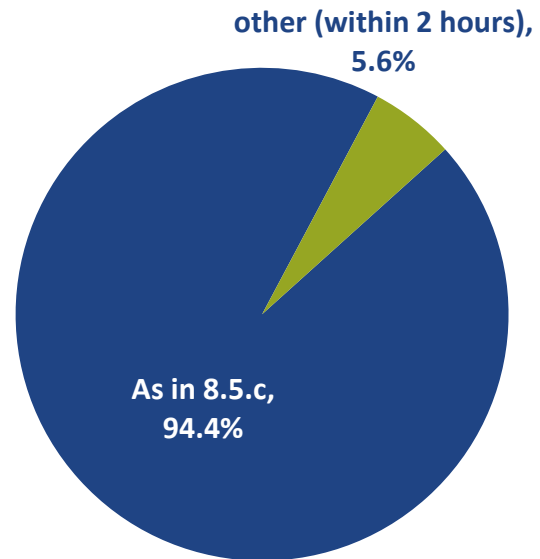


**Which is the TSO responsible for the matching process?**



**72 IPs analysed**

**Has a time schedule taking no longer than two hours been defined?**



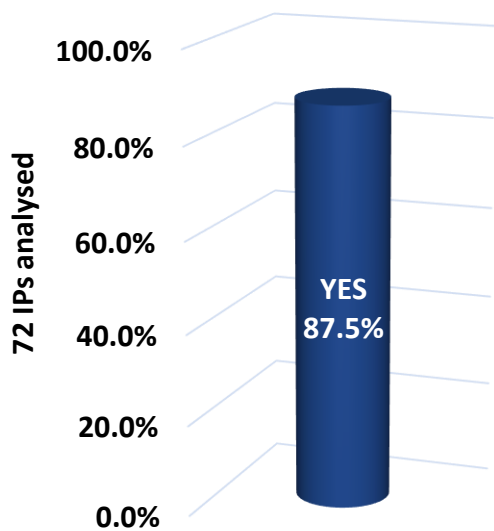
**72 IPs analysed**

*Figure 14. Overview of Article 8, paragraph 2 implementation*

In 52.8% of cases the TSOs which have been declared flow control equipment operators are also responsible for the matching process.

Regarding the timing for the matching process, in all IAs it does not take longer than 2 hours, and in 94% of cases it corresponds exactly to the time schedule described in Article 8 (5) c) of the INT NC.

**A Are temporary reduction of capacities taken into account?**



**B Are data exchange used and the harmonised information specified?**

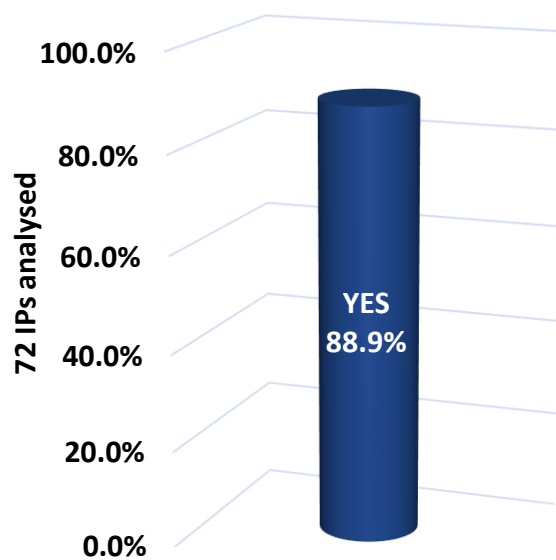


Figure 15. Overview of Article 8, paragraphs 3(A) and 4(B) implementation

In most of IAs, specified rules for the data exchange and harmonised information have been defined.

## Article 9: Rules for allocation of gas quantities?

### What is the allocation rule in place?

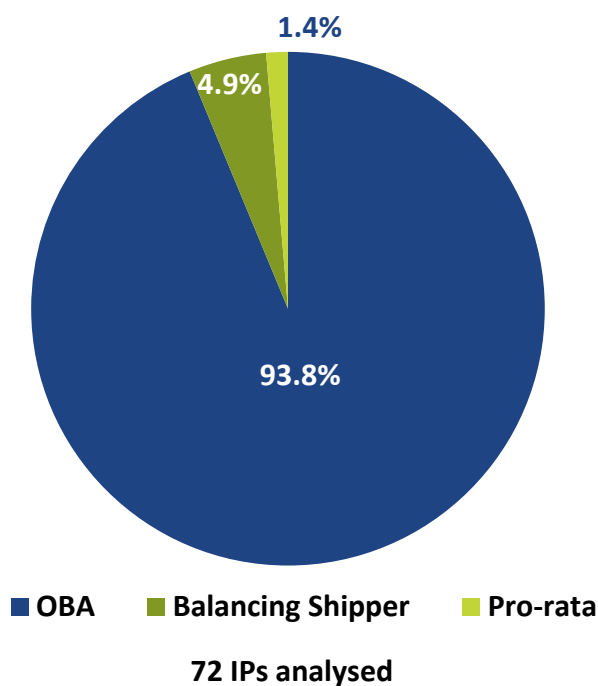


Figure 16. Article 9. Allocation rule

TSOs are using OBA as main allocation rule, in some cases (around 6%) TSOs use balancing shipper (as well as when differences are allocated to an internal market point) or pro-rata principle.

More than 95 % of TSOs using OBA confirmed that if the rule is OBA, it is recalculated by the TSO in control of the measurement equipment. And in all IAs with OBA the principles laid out in Article 9 paragraph 3 have been considered.

All TSOs that use balancing shipper or pro-rata rules informed NUs about the case and invited them for comments.

**Article 10: In case of "exceptional event" is there a procedure to inform adjacent TSOs and potentially affected network users?**

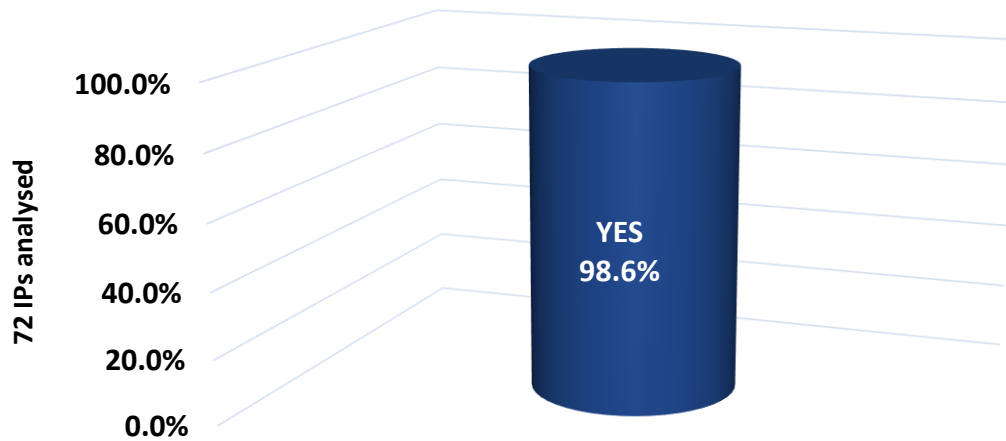


Figure 17. Overview of Article 10 implementation

The notification to adjacent TSOs and potentially affected Network Users on the occurrence of an exceptional event is foreseen in 71 IAs (98.6%).

### 3.2. Units

**Article 13: Is the set of units and referenced conditions defined used for every data exchange and publication?**

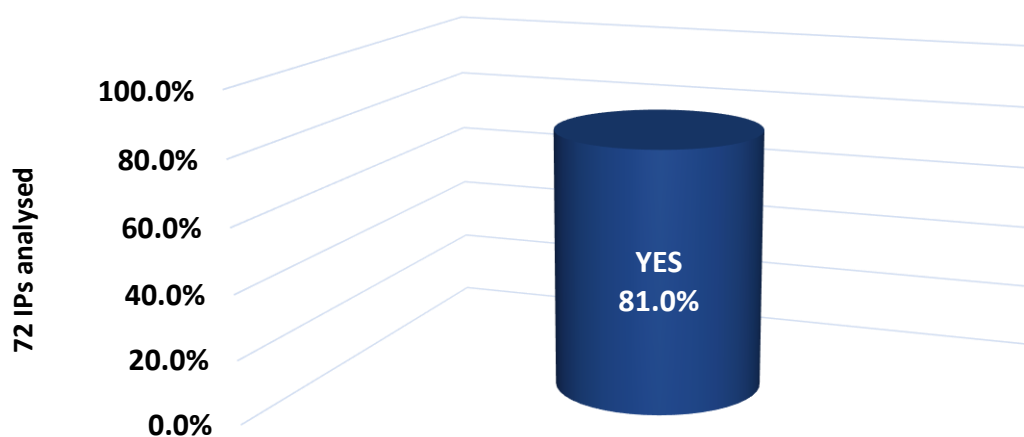


Figure 18. Overview of Article 13 implementation

The common set of units and reference conditions for the purposes of data exchange and data publication are already in use by 81% of TSOs.

**Article 14: Has an additional set of units been defined?**

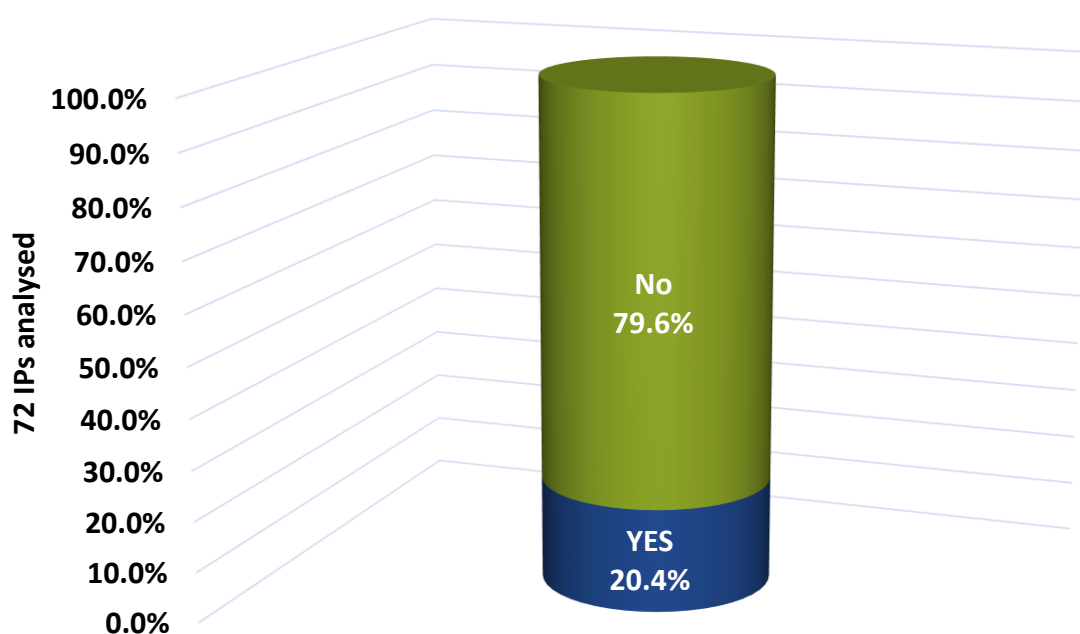
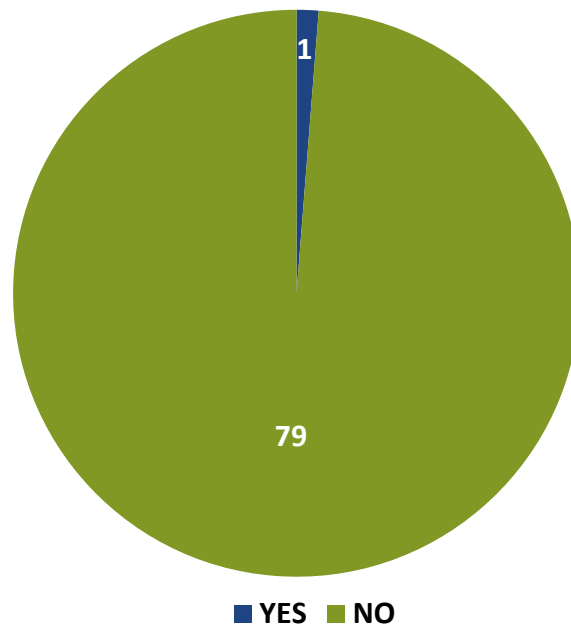


Figure 19. Overview of Article 14 implementation

### 3.3. Gas Quality

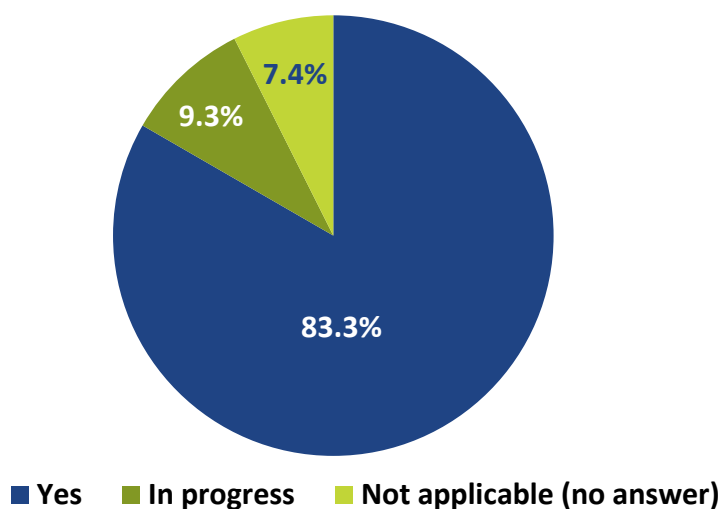
**Article 15: Is there any cross-border trade restriction due to gas quality that cannot be avoided by the standard operations of the TSOs and that has been recognised by NRAs?**



*Figure 20. Overview of cross-border trade restriction due to gas quality on IPs*

Only on 1 IP a potential restriction has been reported by one of the adjacent TSOs. Currently gas quality issues, if present, are solved by mutual cooperation between TSOs, and therefore are not subject to the procedure of Article 15 (2).

**Article 16: Are Wobbe Index and Gross Calorific Value published on your website for each IP that acts as an entry point and once per hour?**

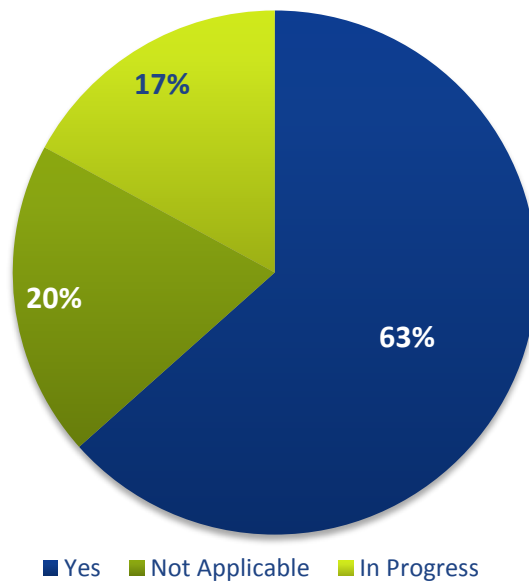


**39 TSOs answers regarding 80 IPs analysed**

*Figure 21. Overview of Article 16 implementation*

Regarding obligations on short-term gas quality monitoring set out in Article 16 of the INT NC, a wide majority of TSOs publish information on Wobbe Index and Gross Calorific Value on their websites.

**Article 17 (3) a): Has the list of parties entitled to receive indicative gas quality information been defined?**



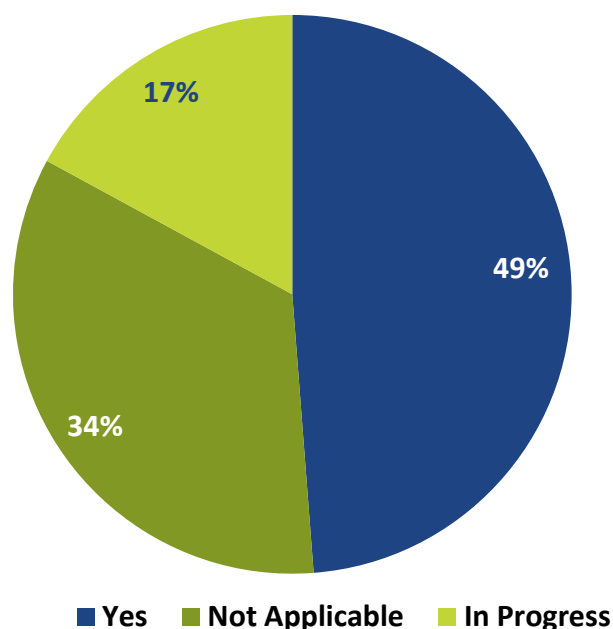
**39 TSOs answers analysed**

*Figure 22. Overview of Article 17 paragraph 3 (a) implementation*

Around 80% of respondents advised that they have either defined or are in the process of defining a list of parties entitled to receive indicative gas quality information.



**Article 17 (3) b): Has a process of cooperation been started to assess what information might be provided to the relevant parties?**



**39 TSOs answers analysed**

*Figure 23. Overview of Article 17 paragraph 3 (b) implementation*

With respect to the previous question, the sum of percentage of affirmative and not applicable answers is similar though an additional 14% of TSOs deem this requirement as not applicable.

### Article 17 (3) b): What information has been regarded relevant?

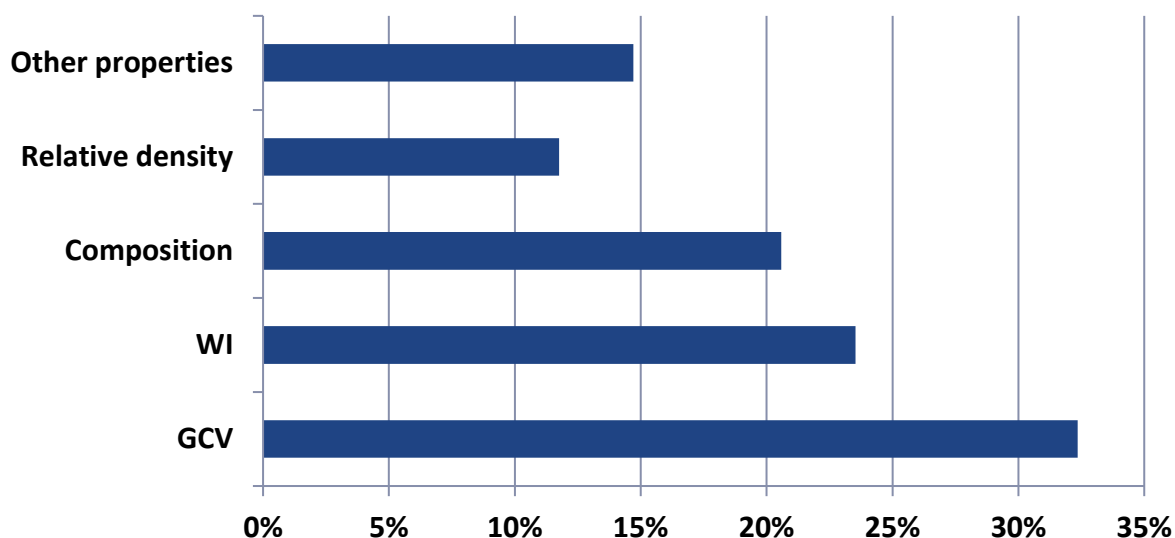


Figure 24. Overview of Article 17 paragraph 3 (b) (i) implementation

The graph above shows a list of the parameters that TSOs are providing to the relevant parties. In some cases stakeholders are not only interested in the value itself, but also on what intraday variations there have been historically and what can be expected from the influence of unconventional sources.

### Article 17 (3) b): What is the frequency for information provision?

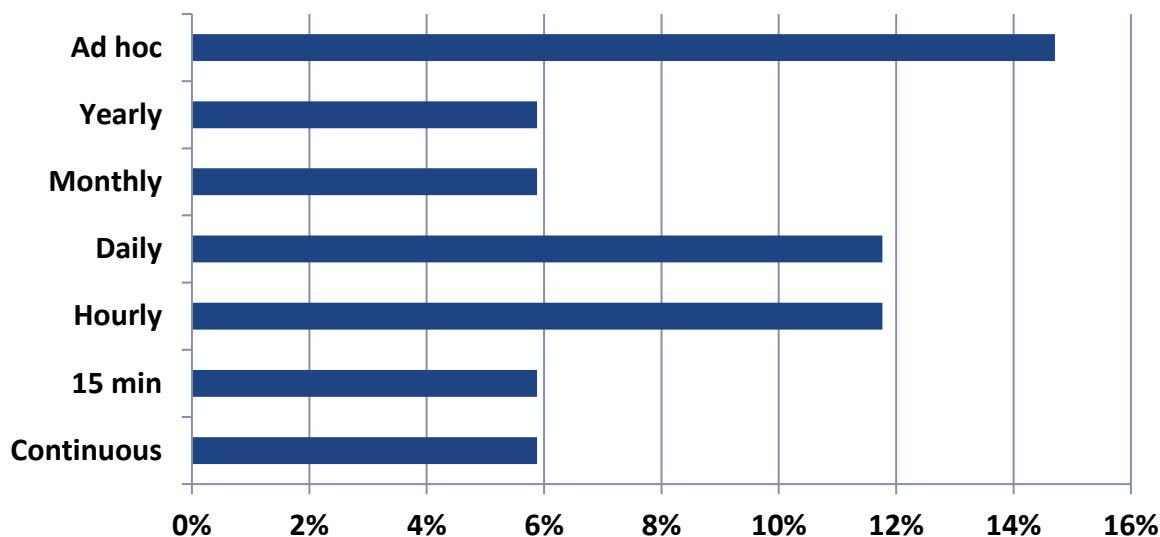


Figure 25. Overview of Article 17 paragraph 3 (b) (ii) implementation

As for the previous question, the graph indicates with what frequency TSOs agreed to inform the identified parties of gas quality data. Frequency varies significantly from real time to yearly, with many TSOs agreeing with relevant parties to provide information only when the parameters of interest exceed a predefined threshold.

### Article 17 (3) b): How long is the lead time?

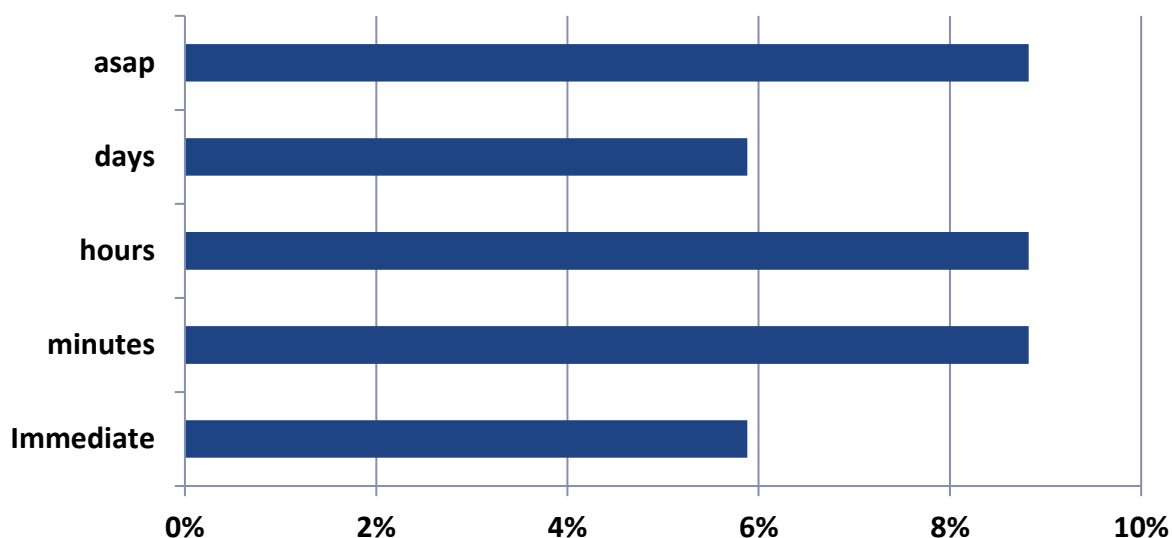


Figure 26. Overview of Article 17 paragraph 3 (b) (iii) implementation

The lead time varies between immediate (e.g. B2B communication) and several days. Several TSOs, normally those reporting by exception, stated that information is transmitted as soon as reasonably possible.

### Article 17 (3) b): What is the method of communication?

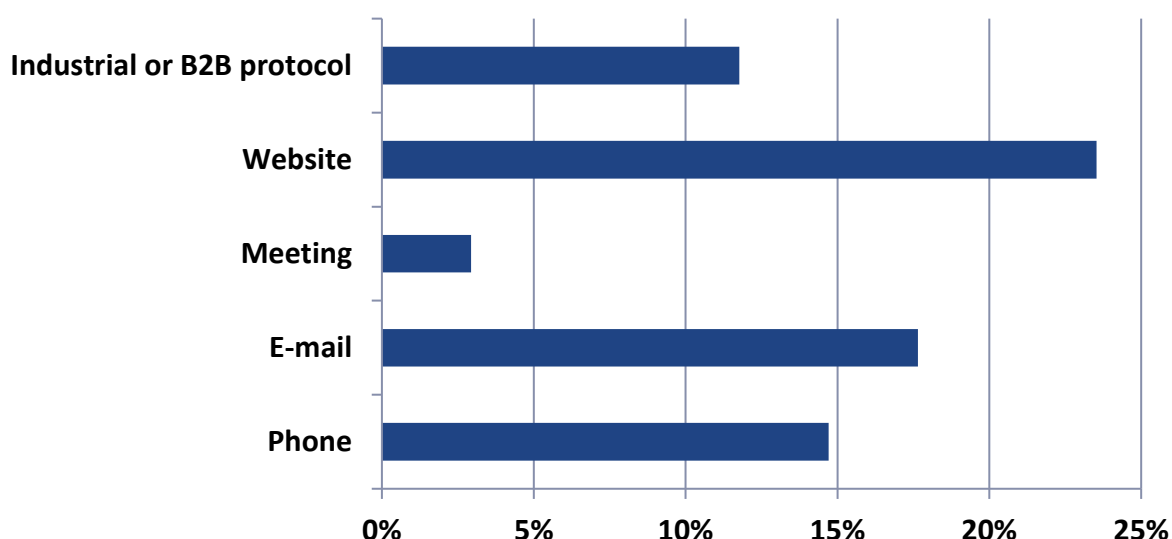
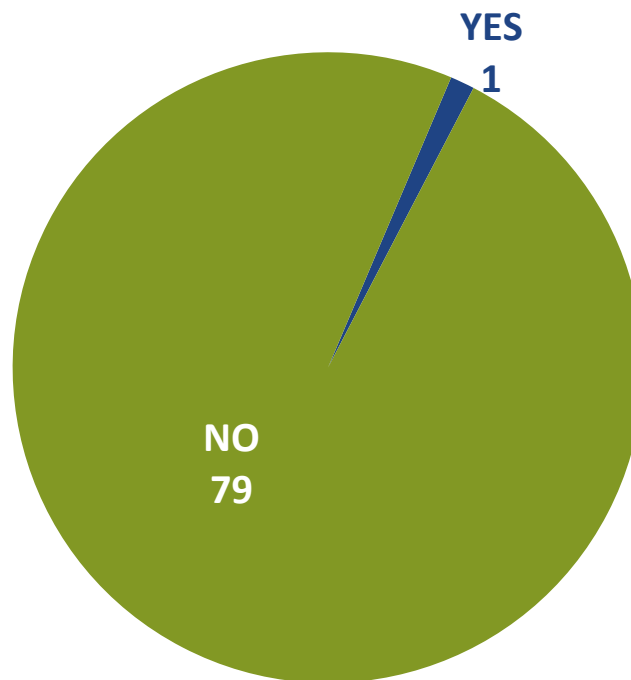


Figure 27. Overview of Article 17 paragraph 3 (b) (iv) implementation

The methods of communication are linked to the frequency (e.g. industrial or business-to-business protocols for continuous data provision vs. phone for communication by exception).

**Article 19: Is there any cross-border trade restriction due to differences in odourisation practices that cannot be avoided by the concerned TSOs and that has been recognised by NRAs?**



*Figure 28. Overview of cross-border trade restriction due to difference in odourisation on IPs*

Only on one IP, has a restriction linked to odourisation practices been reported. However, flows are not actually restricted as the IP is unidirectional and gas can only flow from the adjacent TSO's non-odourised transmission system to the odourised one.

### 3.4. Data exchange

**Article 21: Did your company implement the common data exchange solutions as described in Article 21?**

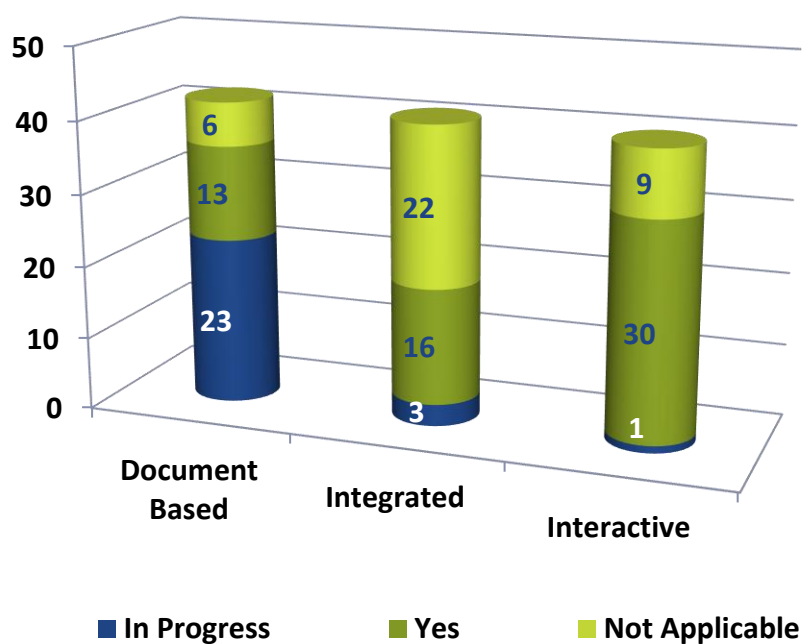
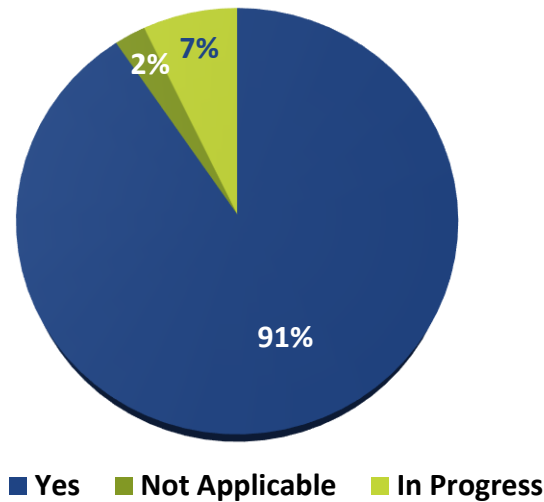


Figure 29. Overview of Article 21 implementation

It shall be noted that, at the time of this report, the specification by ENTSOG of the common data exchange solutions is still undergoing a public consultation process.

## Article 22. Are the Data Exchange system security and availability requirements met?

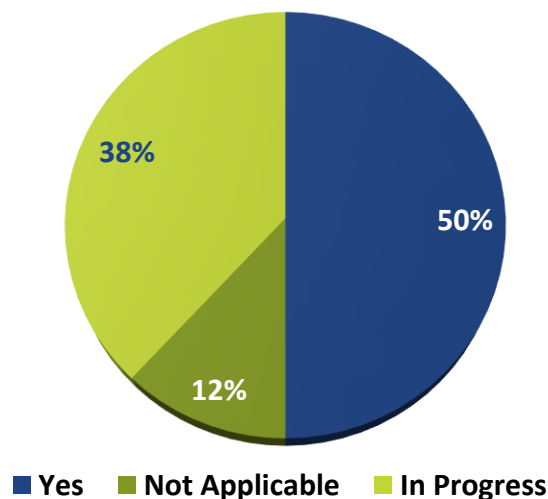


39 TSOs answers analysed

Figure 30. Overview of Article 21 implementation

The majority of TSOs state that the system security and availability requirements are either met or are in the progress of being met.

## Article 23 (1), 21, 24(1): Are the common data exchange solutions available and in use for the Nomination and Matching Process?

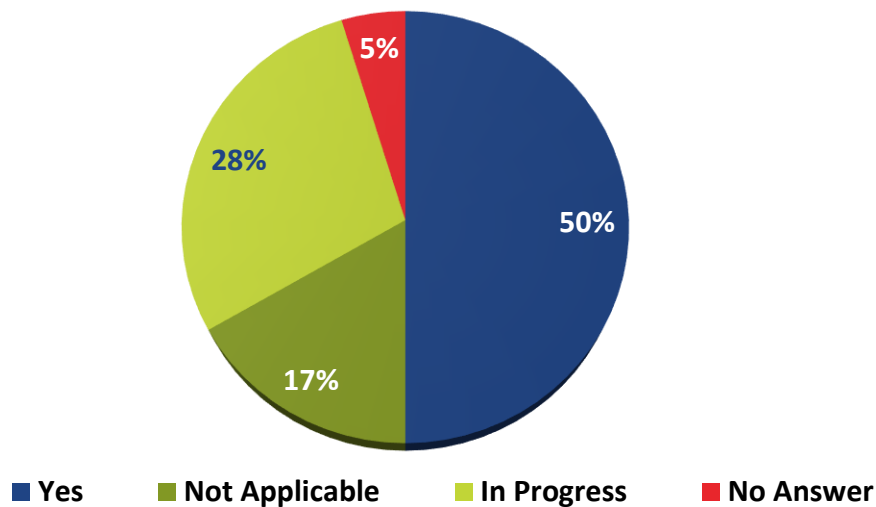


39 TSOs answers analysed

Figure 31. Common Data Exchange Solution implementation for Nomination and Matching

The majority of TSOs have either implemented or are in the progress of implementing the common data exchange solutions for the Nomination and Matching process. Regarding the TSOs who have not implemented these solutions yet, the majority of them are in the progress of implementation. The majority of the TSOs that answered “not applicable” have a derogation on the implementation of the INT NC.

**Article 23 (1), 21, 24(1): Are the common data exchange solutions available and in use for  
b) CAM/CMP**



**39 TSOs answers analysed**

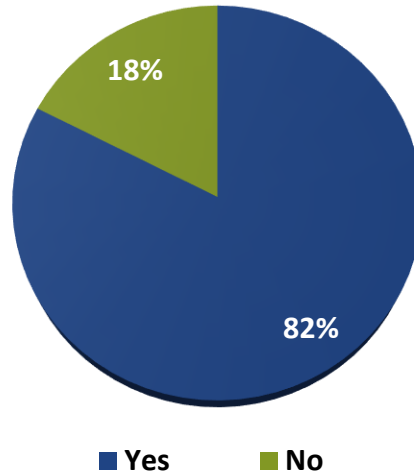
*Figure 32. Common Data Exchange Solution implementation for Cam/CMP Procedures*

The majority of TSOs have either implemented or are in the progress of implementing the data exchange solutions for the CAM/CMP processes.

The majority of the TSOs that answered not applicable have a derogation on the implementation of the INT NC.



### Article 23 (2) Are other existing data exchange solutions staying in place?



39 TSOs answers analysed

Figure 33. Overview of Article 23 paragraph 2 implementation

In the majority of cases, respondents advised that other solutions are staying in place with conditions, for example half of these respondents had agreed with their NRAs that existing solutions could stay in place until dates during 2018. For the remainder of cases, NRAs approved the other solutions without conditions.

The respondents who answered No, are either implementing compliant data exchange solutions or advised that existing solutions were already compliant with their interpretation of the Network Code.