

# ERGaR: facilitating cross border certificate transfers and mass balancing within the European natural gas network

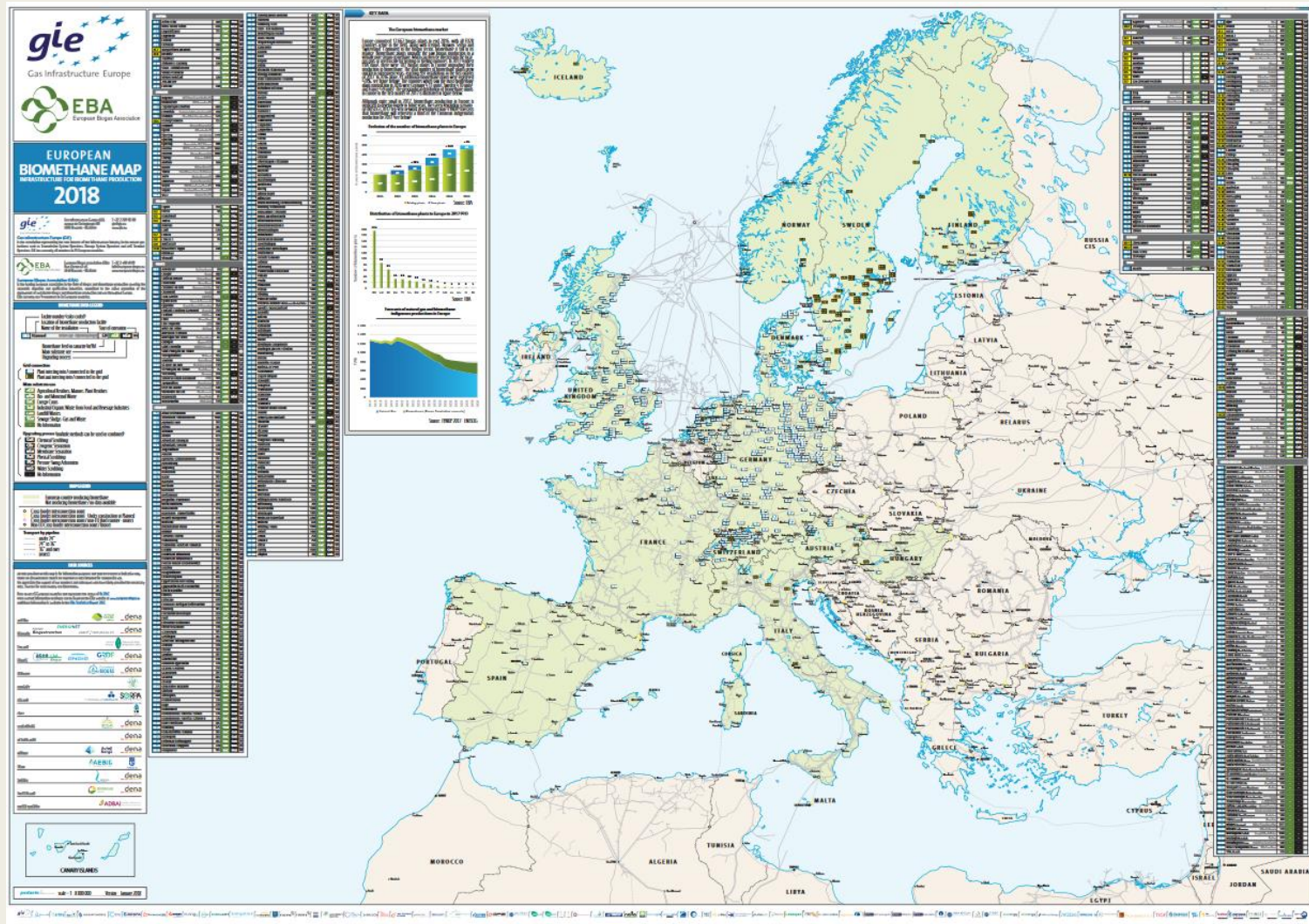
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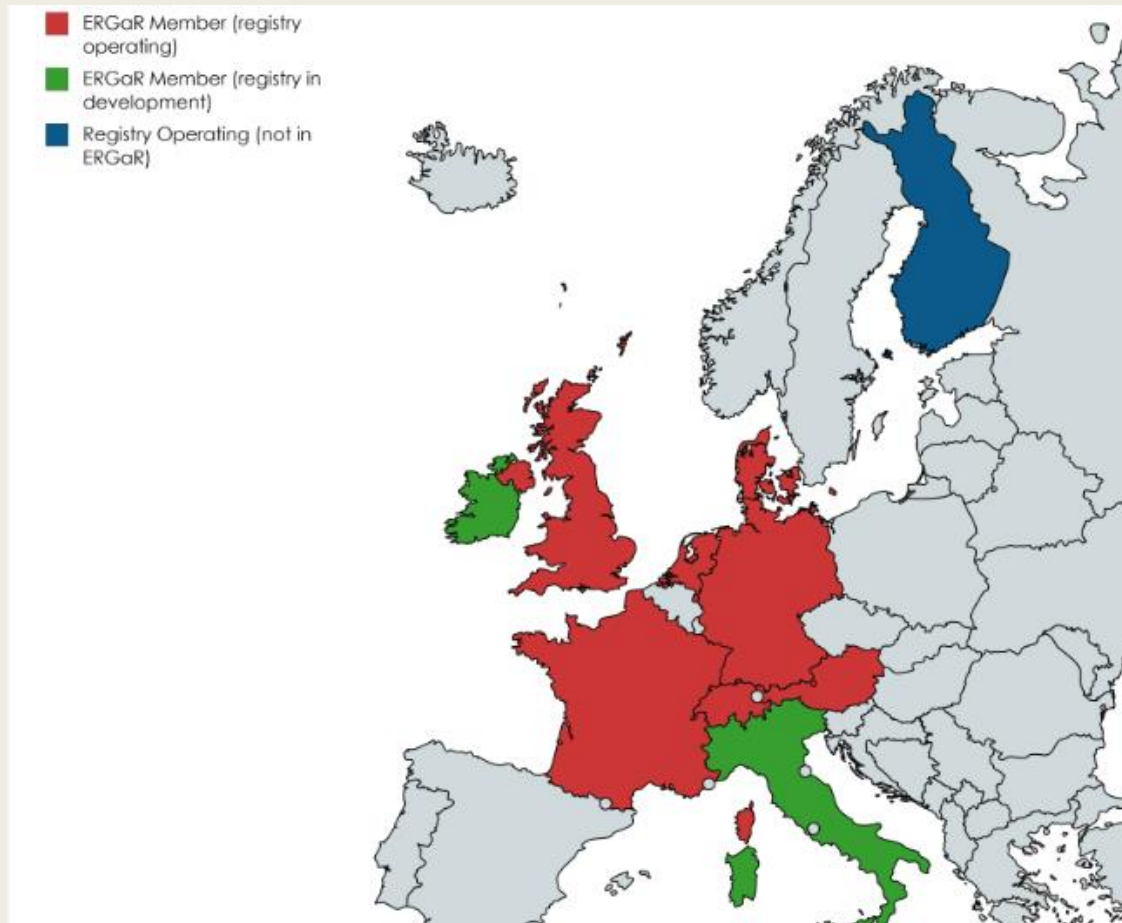
*ERGaR, Board Member*



# Biomethane production...



# Biomethane registries...



- There are currently biomethane registries operating in 7 countries
- All issuing guarantees of origin for biomethane
- Often called Certificates

# Renewable Energy Directive II

- “Guarantees of origin, which are currently in place for renewable electricity and renewable heating and cooling, **should be extended to cover renewable gas**. This would provide a consistent means of proving to final customers the origin of renewable gases such as biomethane and would facilitate greater cross-border trade in such gases. It would also enable the creation of guarantees of origin for other renewable gases such as hydrogen.”
- So we can expect that many more member states will establish biomethane registries in coming years.

# What can biomethane Certificates be used for?

- Emissions reporting using the Green House Gas Protocol (GHGP) methodology. Corporates involved in this market include...
  - *Unilever*
  - *Audi*
- Offering green gas to households
  - *400,000 green gas customers in the UK*
  - *many more across Europe*
- Evidencing the mass balance of biomethane across a grid

# Why transfer Certificates between registries?

The underlying product is the same – evidence that a unit of biomethane has been injected in Location A.

But...

1. Consumers want Certificates issued from their home registry because...
  - *Certificate will be in the language they understand*
  - *Consumers have greater trust and understanding of Certificates from their home registry*
2. If you want to evidence mass balance between countries the Certificate should be transferred between those countries

# How can you move Certificates between countries?

- Austria, Denmark and Germany (DENA) have a system for transferring Certificates between their registries that can be used for voluntary emission reporting purposes
- There have been some transfers of Certificates from GGCS (UK) to Germany (DENA) based on an informal understanding of each others systems (not a cooperation agreement).
- **ERGaR will introduce a multilateral system between 5+ countries significantly expanding the possibilities for Certificate transfers.**

# Who is ERGaR?

- **European Renewable Gas Registry**
- Established September 2016
- We are an "association without lucrative purpose" (Aisbl)
- Contact Persons:
  - *Attila Kovacs, Secretary General*
  - *Stefanie Königsberger, Assistant to Secretary General*
- Website [www.ergar.org](http://www.ergar.org)
- Address: Rue d'Arlon 63-65, 1040 Brussels



# ERGaR members

AT	Austria	AGCS - Gas Clearing & Settlement AG
BE	Belgium	EBA - European Biogas Association
CH	Switzerland	Energie 360° AG
		VSG - Swiss Gas Industry Association
DE	Germany	bmp greengas
		dena - German Energy Agency
		Fachverband Biogas
		Landwärme GmbH
DK	Denmark	Energinet.dk
		NGF Nature Energy
FR	France	GrDF
IE	Ireland	RGFI - Renewable Gas Forum Ireland
IT	Italy	CIB - Consorzio Italiano Biogas
NL	Netherlands	ACT Commodities
		AFS Energy
		STX Services B.V.
		Vertogas
UK	UK	Renewable Energy Assurance Ltd (GGCS)

# What do you need to establish a transfer hub?

1. Trust between the participating registries
  - i. we have been working together for 3 years*
  - ii. we have agreed a set of auditing criteria of our registries*
  
2. Common standard/format for the data i.e. the Guarantee of Origin, being transferred
  - i. we have developed documentation (that we have submitted to the European Commission)*
  
3. An IT solution to transfer and record the data
  - i. we are developing a solution that is scheduled to go live at the start of 2019*

# Book and Claim vs Mass Balance

- The ERGaR hub will allow transfers where the Certificates are used for Book and Claim systems of green gas use.
  - *In Book and Claim systems the Certificate is traded separately from the physical product.*
  - *Book and Claim is accepted under the Green House Gas Protocol*
- Our ambition is for ERGaR to also facilitate transfers that evidence a Mass Balance of biomethane
  - *Application to be recognised as a Voluntary Scheme for mass balancing by European commission submitted in late 2017.*
  - *Mass Balance is a higher standard than Book and Claim in the connections you have to make between the Certificate and the physical product.*

# What is mass balancing?

RED Recital (76):

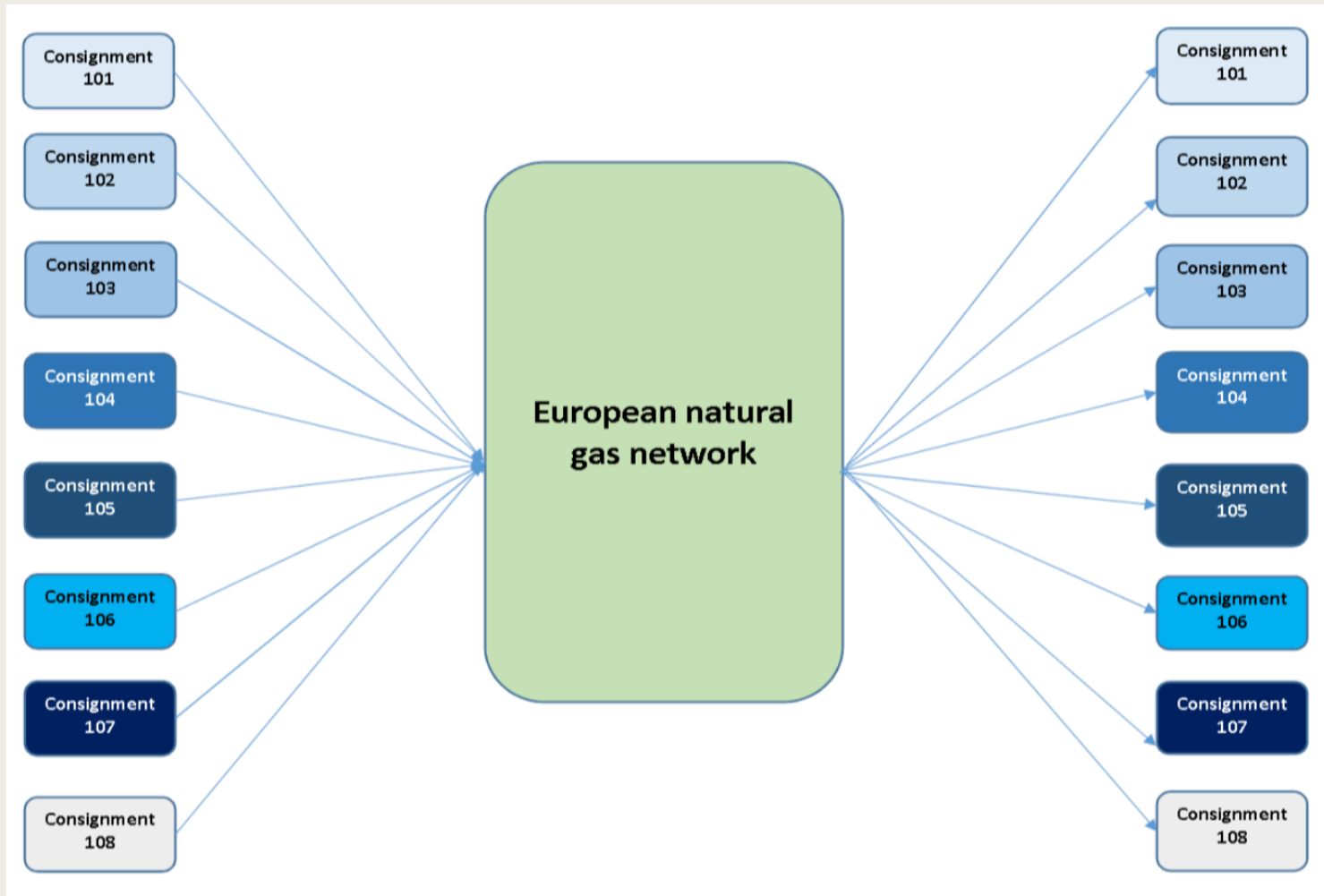
*“According to the mass balance method of verifying compliance, there is a **physical link between the production** of biofuels (and bioliquids) meeting the sustainability criteria **and the consumption** of biofuels (and bioliquids) in the Community.”*

**The physical link between the production and consumption of biomethane is the natural gas network**, the administration must ensure the balancing of every injected consignment with the corresponding withdrawn consignment.

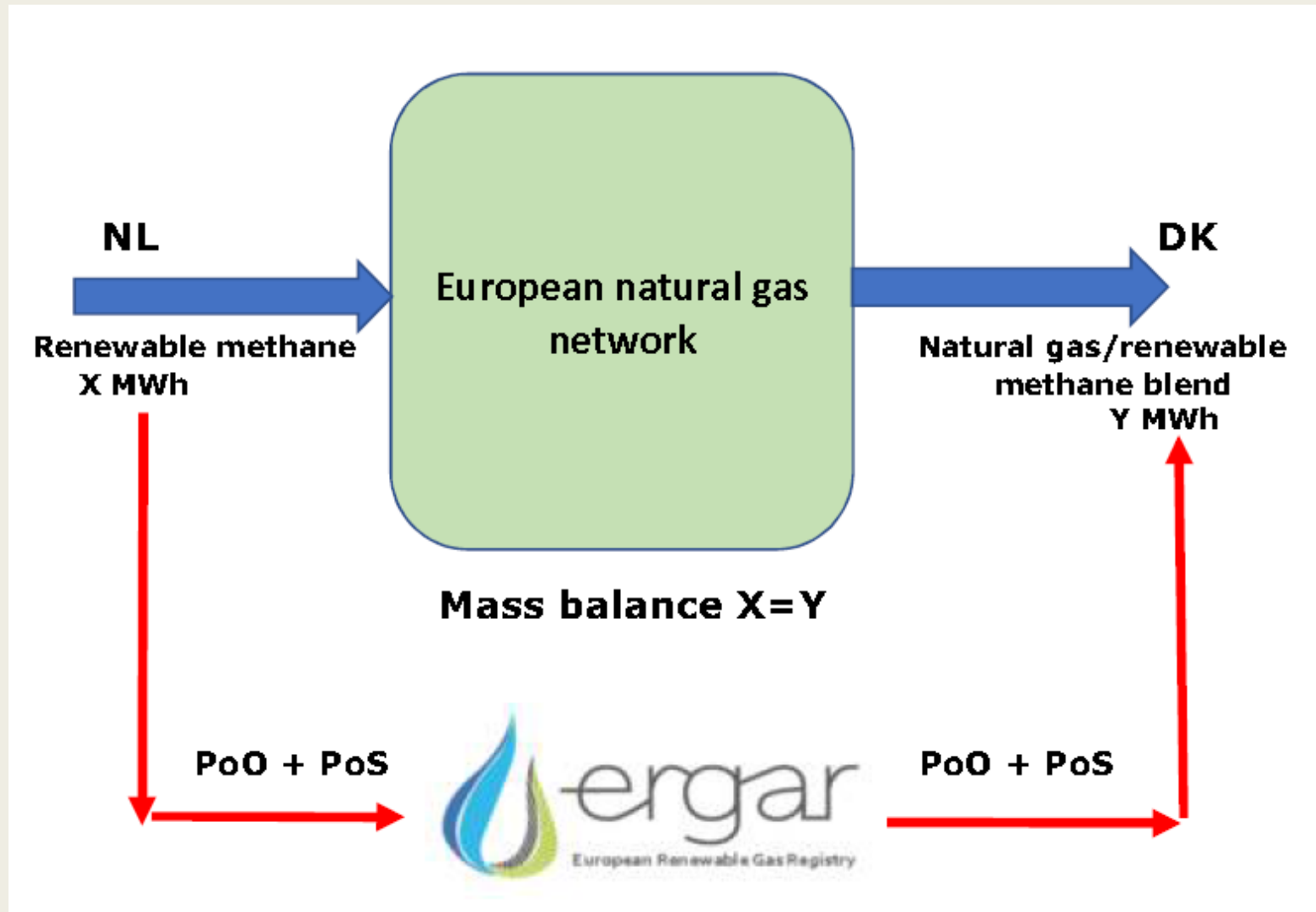
# Three pillars of mass balancing across borders

1. **European natural gas network** (consisting of the transmission and distribution systems) should be **treated as single logistical facility** with regard to injected biomethane.
2. **Mass balancing of injected and withdrawn biomethane consignments** within the European natural gas network is possible.
  - *“Mass balancing within a single logistical facility means that it is sufficient to register/document the input (injection) and the output (withdrawal)”*
  - *“There is no need to track or document the physical movement of biomethane within the logistical facility, as long as the mass balance between the injection and withdrawal points can be properly documented.”*
3. **Sustainability verification** (prior to grid injection) and **cross-border transfer of sustainability claims.**

# Mass balancing is done consignment by consignment



# Mass balancing by ERGaR:



# Why do we need the transfer of sustainability characteristics?

The **principal answer** is in the RED which makes it mandatory:

*“Biofuel production should be sustainable. Biofuels used for compliance with the targets laid down in this Directive, and those that benefit from national support schemes, should therefore be required to fulfil sustainability criteria.”*

The **business reasoning** is also referenced in the RED:

*“Sustainability criteria will be effective only if they lead to changes in the behaviour of market actors. Those changes will occur only if biofuels meeting those criteria command a **price premium** to those that do not.”*



# Cross Border Transfer of Sustainability Claims

The **sustainability verification** for biomethane injected into the European natural gas network for export purposes should consist of **two steps**:

1. The **first part of the chain of custody** – *from raw material supplies through production/upgrading to grid injection* – will be covered by one of the established sustainability verification procedures, exactly like in case of liquid biofuels.
2. The **second part of chain of custody** – *from the moment of grid injection to the withdrawal by the end-user* – will be covered by the new voluntary scheme applying the mass balancing methodology.

# Key benefits

- Avoid the time and expense of trading gas through interconnectors.
- Gaseous biofuel (biomethane) can therefore be made available for transport use (and biofuel ticket claims) everywhere in Europe.
- **New biomethane production facilities can be developed** based on supplying markets beyond their own country.
- Organic waste utilisation becomes possible even in countries where otherwise the conditions are not suitable (governments not supportive, local market undeveloped, project finance difficult).
- **International companies with environmental awareness** will have renewable gaseous fuel supplies in every European country they operate.

# THANK YOU

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