***Question 13: What opportunities or challenges do the supply projections for different sources, in particular LNG and pipeline gas and low carbon indigenous sources, present for the use of gas storage / for gas storage operators?***

Theoretically the referred sources are not able to offer as type of seasonal and daily balancing as a storage site can. Low carbon indigenous production is almost flat with minimal swing and LNG as an import source (considering the long term supply contracts) and not as a peak sheaving tool may provide limited resilience as well. These nearly moderate natural gas sources associated with the well connected European pipeline system could mean good chance to storages for their better utilization. Unfortunately, the storage operators' experience is that the demand for storage as a seasonal balancing element of the infrastructure is decreasing, because traders are able to earn flexible sources at a lower price than a flat supply contract and a storage together can offer. How could it happen, how did storage lose the competition? Most probably, the natural gas producers and LNG suppliers changed their traditional strategy, because more and more import source can be achieved through new pipeline routes and connection points. It increases the competition among suppliers whose answer is to provide more and more flexibility clearing the seasonal spread away and decrease the oil indexation in their prices. This unfavourable situation for storages is enhanced with the Entry-Exit transmission tariff system, because a trader will have to pay twice entering its gas into the pipeline system (first at cross border interconnection point, secondly at storage) and twice when it exiting the gas from the network (first at storage, secondly at gas distribution station) if it uses storage. The main challenge for Storage System Operators (SSOs) to remain in competition with flexible sources is to convince ACER and their National Regulatory Authorities (NRAs) to decrease even completely delete the storage Entry and Exit fees. Hungarian NRA has recognised the benefits of the proposed transport tariff system modification and the storage Entry fee will be reduced significantly from 1 October.
Other main question is the gas quality harmonization in the EU. There isn't a common agreement among Member States about the full scale of parameters. It could mean a big challenge in design of gas accessories. Member States accepted the new standards (EN16726), but there have been some open questions yet. From energy efficiency point of view it is also much better to use common standards, which cover all off the main parameters. If we are successful in solving this issue, we have to manage the efficient mixing of LNG and pipeline gases as well, which can bring additional problems and tasks.

***Question 14: Are, in your view, current market and regulatory conditions adequate to ensure that storages can fully play their role in addressing supply disruptions or other unforeseen events (e.g. extreme cold spells)?***

As it was introduced above, traders use the flexible gas sources ignoring the security issues to keep the low prices. While the Regulation (EU) No 994/2010 of the European Parliament and the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC determines the N-1 rule, which only take the capacities of gas infrastructure of a member state or a region into consideration, it does not deal with the availability of sources. It could not be doubt that a sufficiently large gas stock in a storage with significant withdrawal capacity near the place of consumption is the best tool for supporting the security of supply in case of supply disruptions, and extreme cold spells. Some member states having restricted access to the gas sources while others recognising the danger of the traders' behaviour decided to establish strategic storage and issued the adequate regulations. It is highly recommended to modify the 994/2010/EC regulation to put more emphasis on strategic storage and to foster its regional role.

***Question 15: As an alternative to mandatory reserves, how could market based instruments ensure adequate minimum reserves?***

Market based instruments are not alternatives to mandatory reserves. Security can't be addressed to the market. Usually gas consumers are not aware of supply disruption possibilities and they do not want to pay extras for it. Not even if they know the risk. Approaching this question from the traders' point of view it is obvious that they are not interested in providing high level security of supply without compensation and they also take the risk of a supply disruption. The governments of member states in close cooperation with NRAs have to force the usage of storages for strategic stockpiling of natural gas, because the mandatory reserves will change the minds of traders. They will probably use that volumes for commercial purpose and the reserves may disappear partly or completely before a crisis situation decreasing the security of supply.

**Question 16:** ***Do you have any analysis or view on what an optimal level/share of storage in a Member State or region would be? What kind of initiatives, if any, do you consider necessary in terms of infrastructure development in relation to storage?***

Every member state (region) has an individual source and consumption structure. There can't be used a "one size fits all" storage requirement. Concerning the Hungarian gas market, which is very dependent on import gas (mainly deriving from Russia) and can be characterised by high ratio of household consumption, 25% of annual natural gas usage should be stored with an 80 days withdrawal capacity (it means the whole stored volume can be withdrawn during 80 days using the max. committed withdrawal capacity).

We are convinced that there is by far more underground gas storage capacity in Europe for commercial purpose than the market would use taking into consideration the increasing ratio of renewable energies, the new supply sources in Europe and outside of the Continent, new LNG infrastructures, energy efficiency programs, etc. Member states and financial investors spent huge amount of money for storages earlier and usage of the existing infrastructure should be a mutual interest of every participant of European gas market. It should not be allowed that storage sites are going to be closed partly or completely because of new infrastructure projects. It would mean duplication of cost without capacity increase and worse utilization of existing infrastructure elements. The problem from storage point of view is that new pipeline developments (interconnectors, expanded capacities) were performed to provide easier access to the gas sources. The need for existing storages fell down meaning value loss for them and the security of supply was decreased, because traders tended to use the new, but risky sources achievable via new infrastructure with lower cost.
It was a missed strategy that should be completely changed, which is the responsibility of Member States, NRAs and European Committee.

***Question 17: Do you think, in addition to the existing TEN-E Regulation, any further EU action is needed in this regard?***

Yes, the Articles referred to Projects of Common Interest should contain the sustainability of the existing (but modern), low cost infrastructure element, focused on storages. It has to state that new infrastructure can only be permitted, if it optimize (increase, but at least maintain) the utilization of the existing storages.

***Question 18: Given uncertainties over future gas demand, how would you assess the risk of stranded assets (and hence unnecessary costs), lock-in effects, the risk of diverting investments from low carbon technologies such as renewables, delaying a transition in energy systems and how would you and weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?***

The risk is enormous. Therefore, there are many ideas coming from SSOs to use the storages for other purposes (energy storage, carbon capture and storage, etc.). But, the most efficient use of a natural gas storage site for long term is natural gas storage. A car is best to use as a car. We can transform it to perform many other things, but the most efficient use is the transport.
The best gas storage utilization could be the strategic gas storage connected to the commercial storage. This can save the infrastructure from lock-in effects enhancing the security of supply and leaving traders to offer their services freely for the consumers. The regional approach of strategic storage may also be an additional driver.

***Question 19: What do you think are the most critical regulatory barriers to the optimal use of storage in a regional setting?***

The transmission tariff system, mainly the storage Entry-Exit fees and the backhaul fees at the cross border (interconnection) points and at storages are against the use of a storage regionally. They are the main barriers of increase the regional or more widespread use of a storage, because they restrain the economic use of a storage located far away from the place of gas usage without contribution of traders (replacing of gas volumes).

***Question 20: Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do? Do initiatives need to include additional issues further to the ones described here?***

See our answers above.

***Question 21: Do you consider EU-level rules necessary to define specific tariff regimes for storage only or should such assessment be made rather on a national level in view of available measures able to meet the objective of secure gas supply?***

EU-level specific tariff regimes for storage probably do not work. The assessment to be made rather on national level. The main users of a storage site for commercial purpose are traders supplying local (member state) consumers. The member states and NRAs evaluate the role of the storages in the security of supply taking into consideration the national gas market, the economic circumstances, the cost of storage operation, the national infrastructure structure, etc. and decide on the tariff regimes.

***Question 22: Have you ever encountered, or are you aware of, difficulties in accessing storage facilities? Has this concerned off-site or on-site storage facilities? Please describe the nature of the difficulties in detail.***

Our experience is that storage is an easy accessed element of the infrastructure.

***Question 23: Have you ever encountered, or are you aware of, difficulties related to feeding LNG gas from the storage site back into the gas network? If so please describe the nature of these difficulties (regulatory provisions, company behaviour, technical problems) in detail.***

No, we do not have any experience on this issue.
We can see that several LNG terminal project is in progress and EU would like to have it as a backbone of security of supply. We would like to emphasize that LNG sites and LNG transport are the most dangerous part of the gas infrastructure. Regarding security of supply member states have to evaluate the risks of terror attacks and technical accidents. An LNG detonation may have unpredictable consequences (death, destruction). Underground gas storage is much more safety, because the gas stock is in the reservoir and it is kept under the surface if there is any technical damage, thanks to the modern safety systems. EU has to support storage of natural gas in gas phase

in UGSs and not as LNG. LNG can be one of the gas supply, but it should not be store in big volumes onshore.

As we wrote earlier gas quality differences have to be managed to keep the systems in good conditions and use them with the maximal energy efficiency.