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FlexPlan

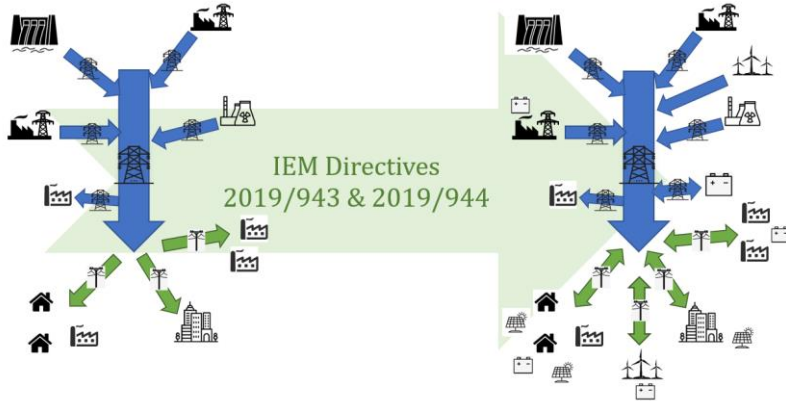
Italian Worksop 2023 | 25 Gennaio 2023

Riflessioni regolatorie preliminari

Dario Siface, Giorgia Lattanzio

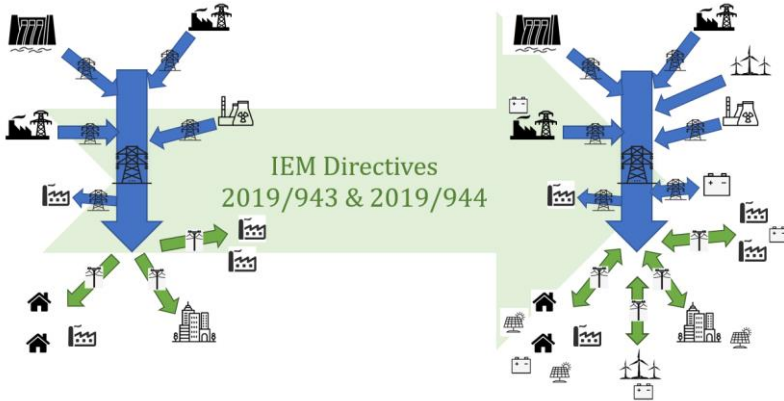
RSE S.p.A.

A New Perspective

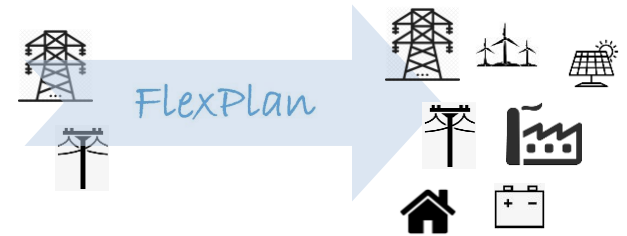


FlexPlan is a research project part of the assessment of the evolution of Power Systems towards a larger involvement of distributed resources.

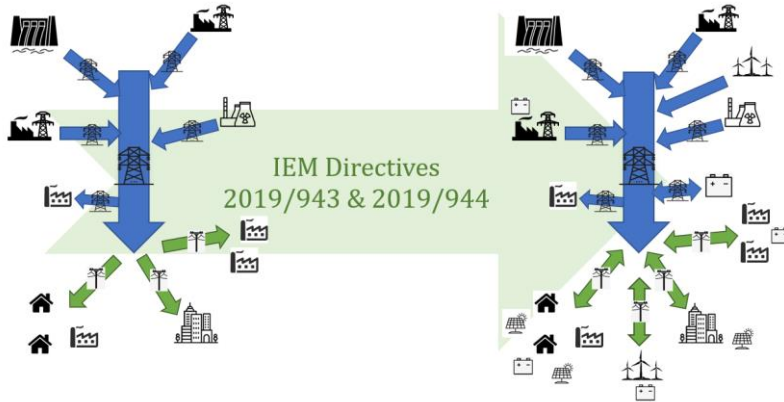
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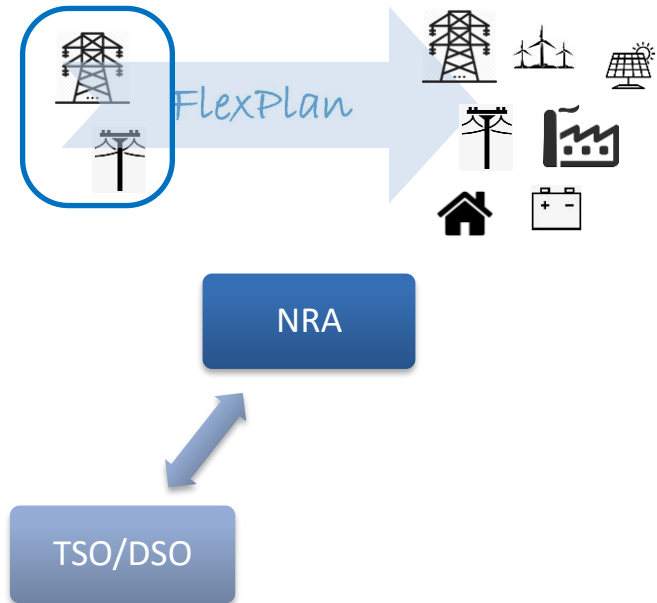


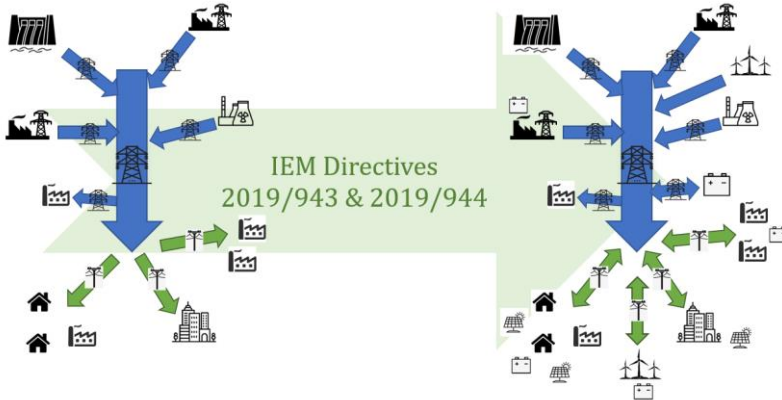
A New Perspective



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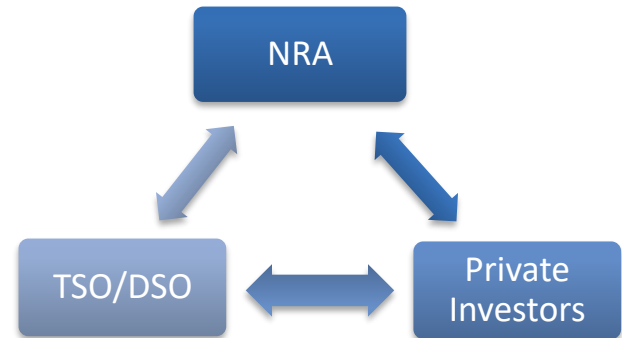
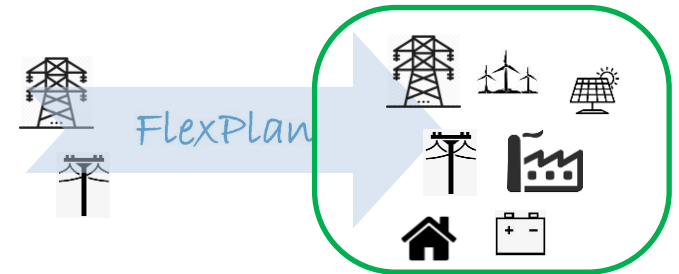


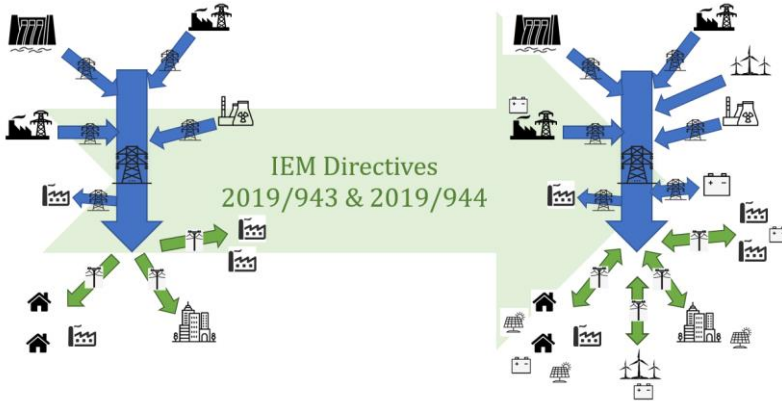


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If in the present situations investment – under the control of NRAs – are only in charge to SOs, the desired future configurations will include also private investors – i.e. flexibility owners.

These new figures will have to interact both with SOs – to meet the real needs of the Power System – and with NRAs – to assess the goodness of the investments.



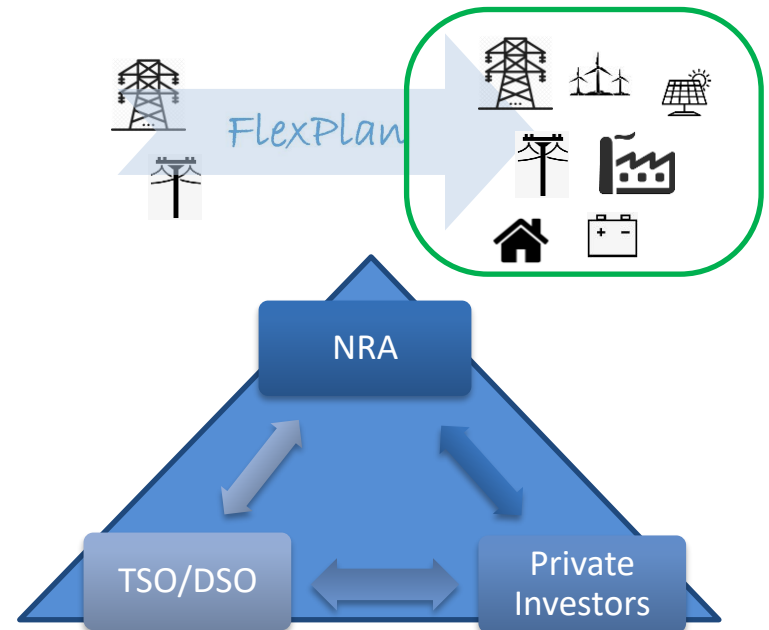


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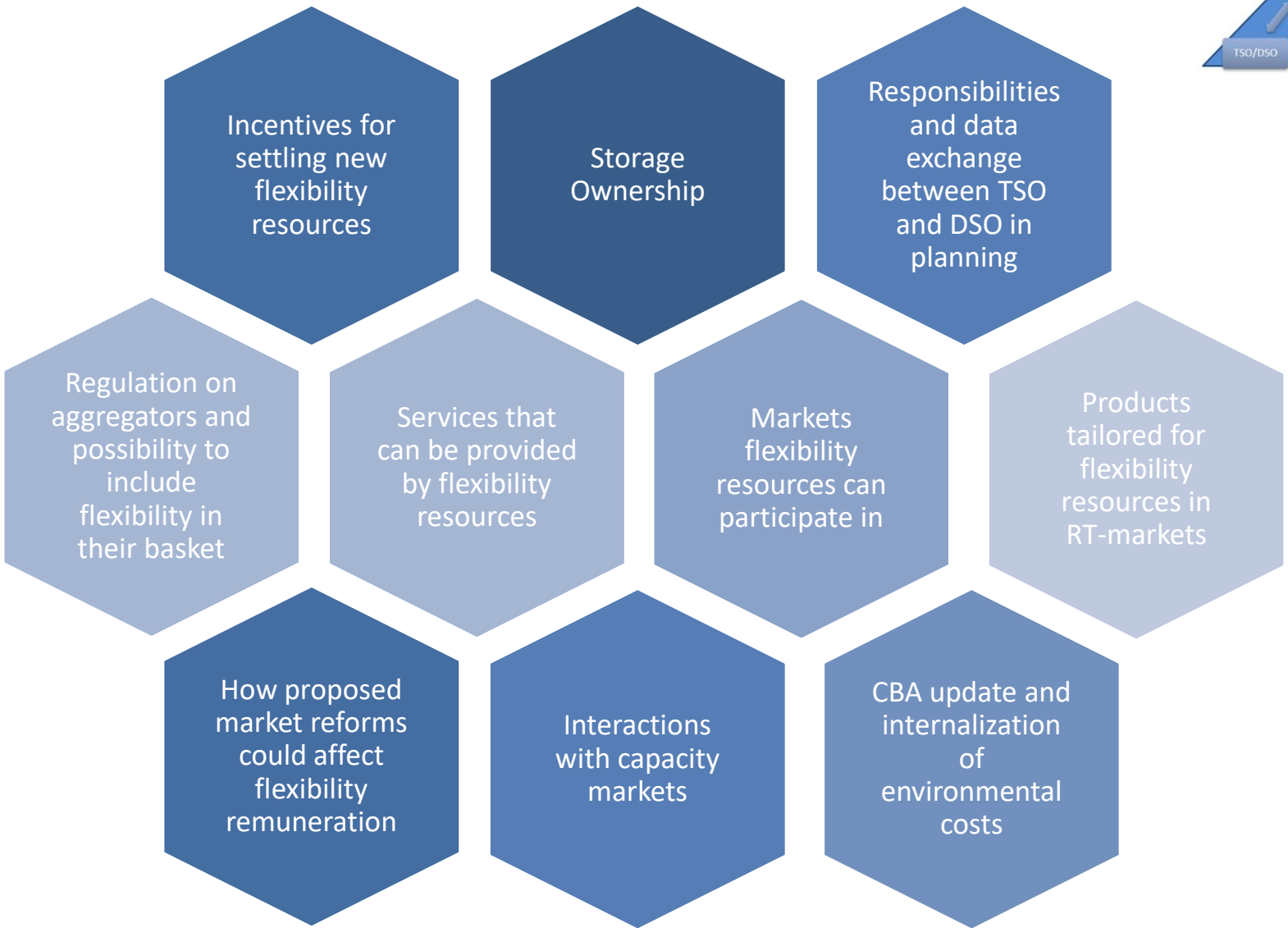
A new – more complex – “triangular” interconnection will have to be considered.



Preliminary thoughts for regulatory guidelines

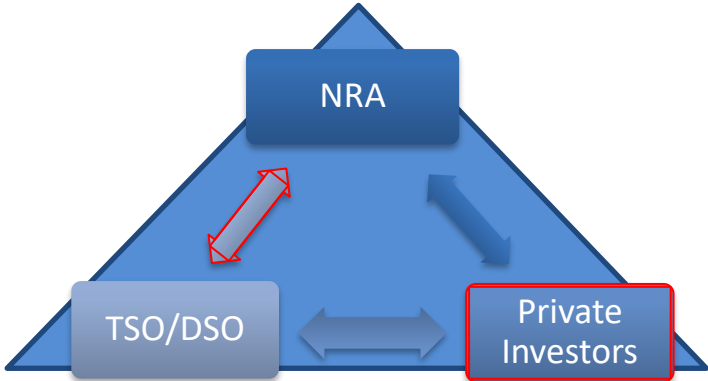
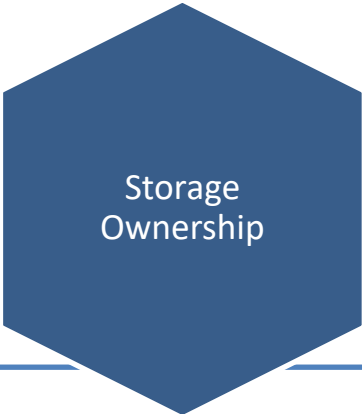
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FlexPlan proposes to analyse the regulatory guidelines considering 10 main topics:



Preliminary thoughts for regulatory guidelines

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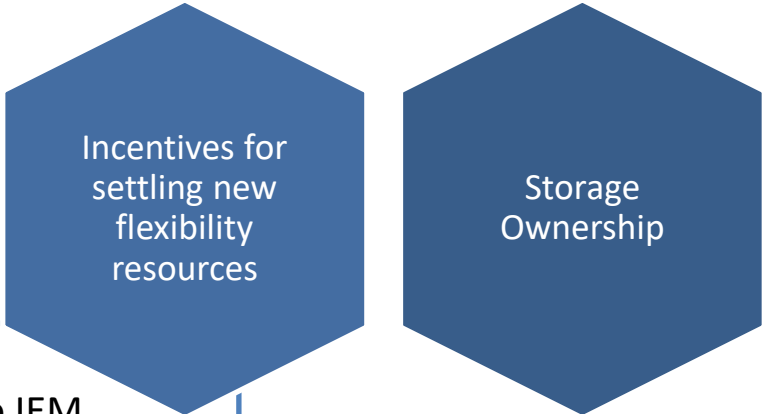
SOs are not allowed to own storage facilities according to IEM Directives.

To avoid conflict of interests and market distortion, private investors should be found.

Also “must-run” operation could be considered.

SOs ownership should be allowed only if strictly necessary (e.g. to prevent exercise of market power).

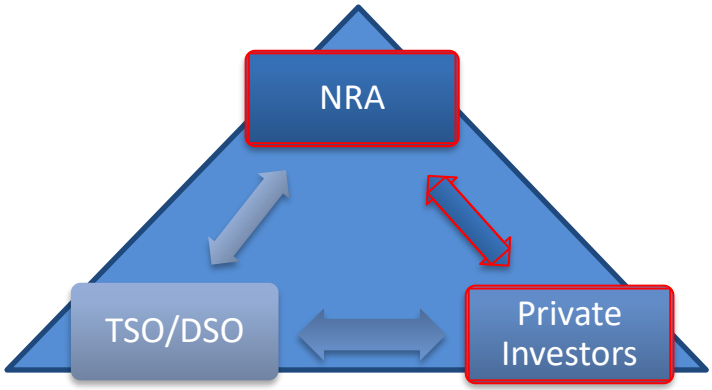
Preliminary thoughts for regulatory guidelines



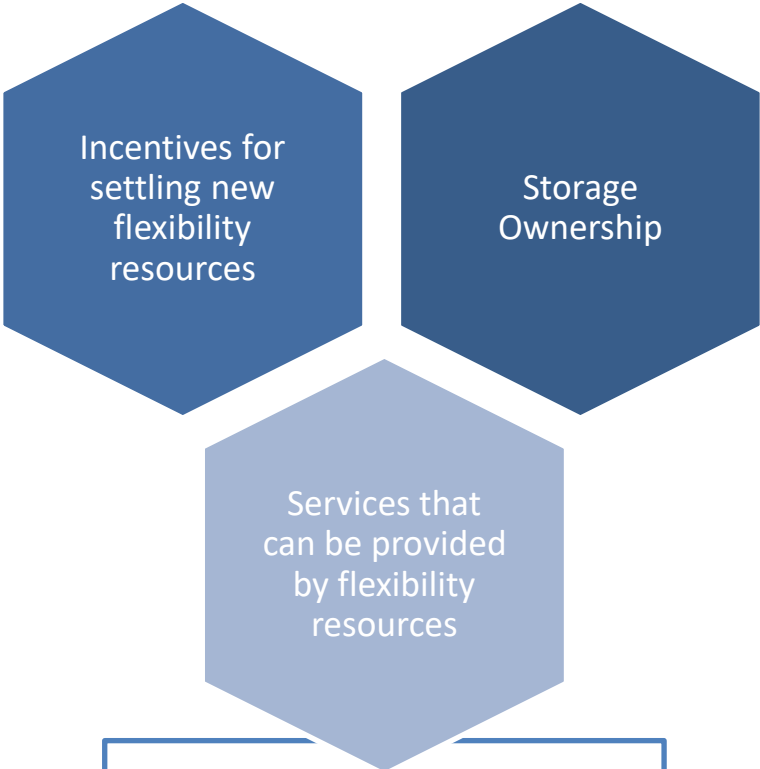
According to IEM Directives, flexibility should be valorised as a support to T&D grid planning.

Local economic signals would foster an optimal deployment of the new resources, while ensuring a proper remuneration of the new flexibility assets.

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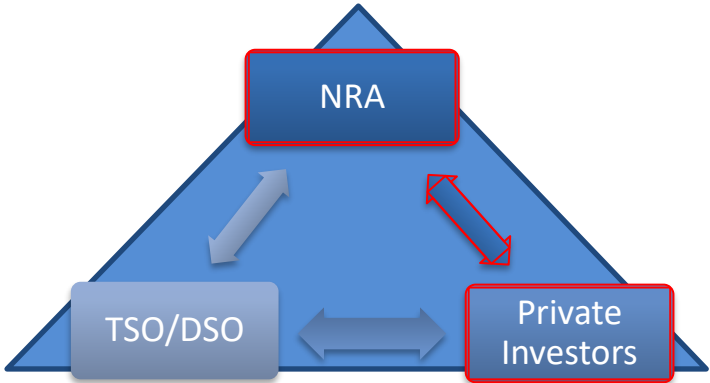


Preliminary thoughts for regulatory guidelines



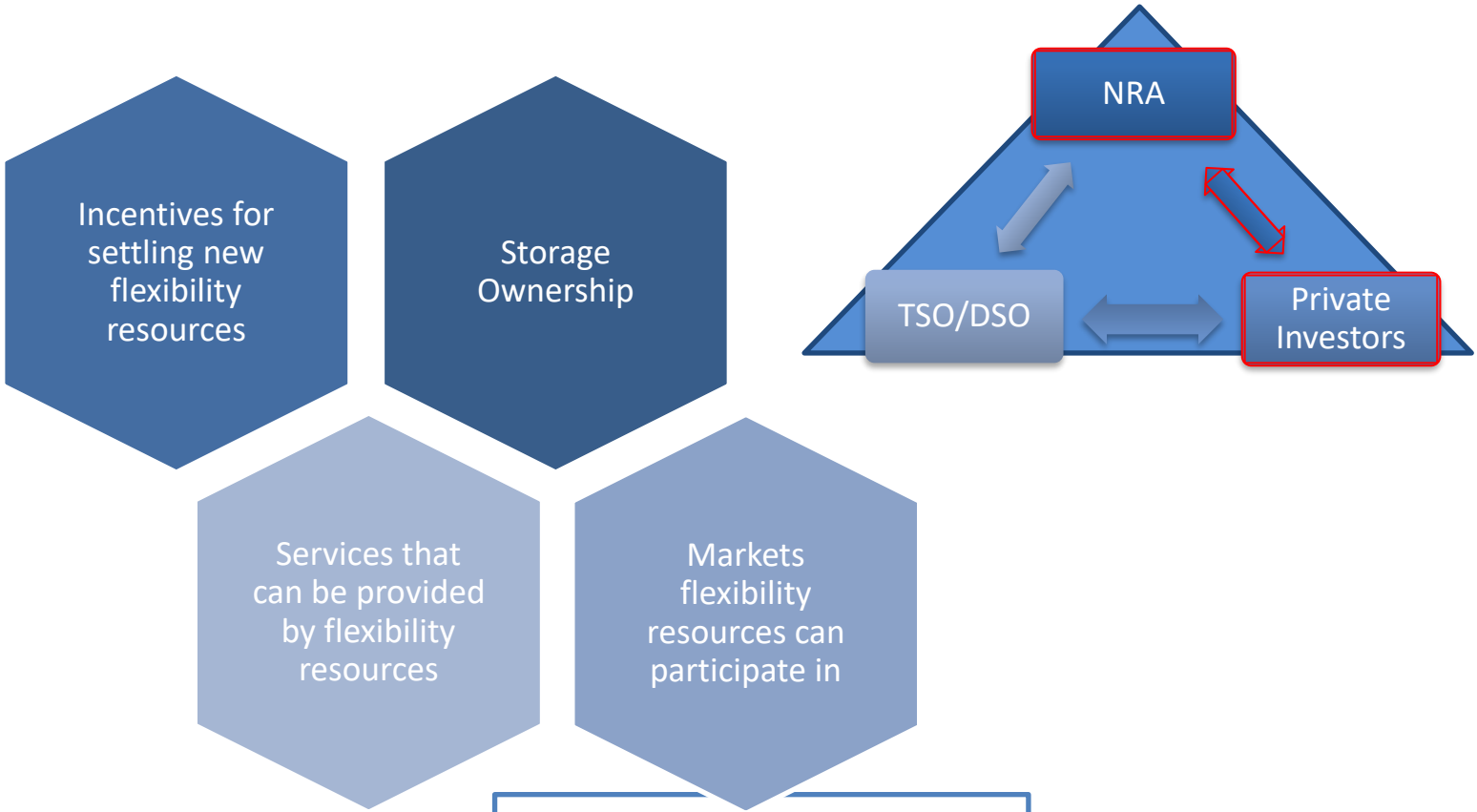
A good exploitation of flexibility resources requires to establish how flexibility should participate to grid management. Market-based mechanisms are suggested by IEM Directives.

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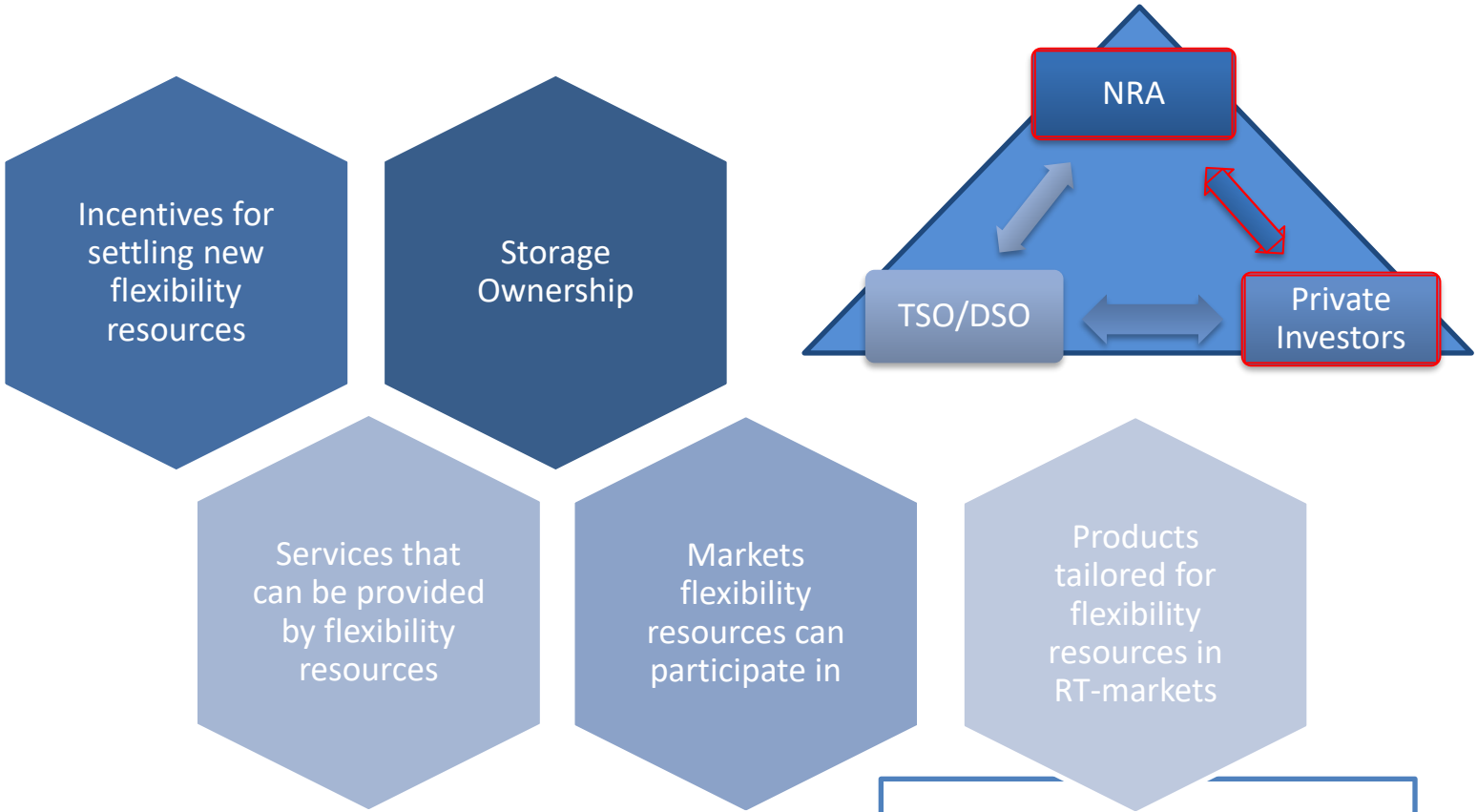
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The market chain architecture should be reviewed to promote participation of DER. New guidelines are needed to promote deployment of all kind of flexibility (e.g. demand response).

Preliminary thoughts for regulatory guidelines

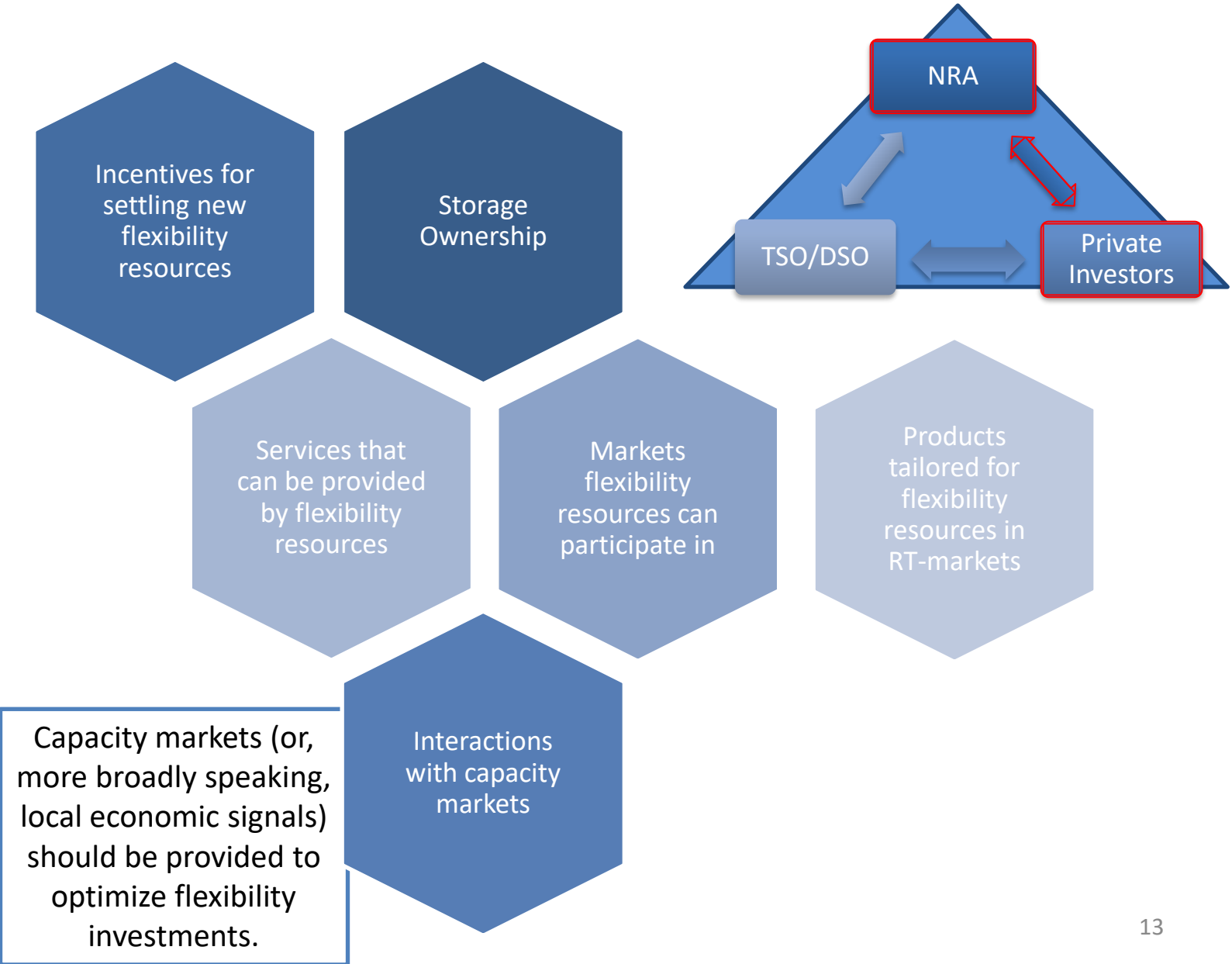
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A set of specific products should be created in order to allow and enhance the use of flexibility resources in real time markets.

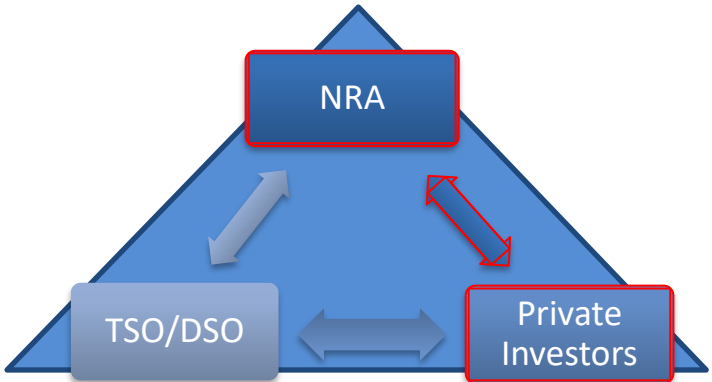
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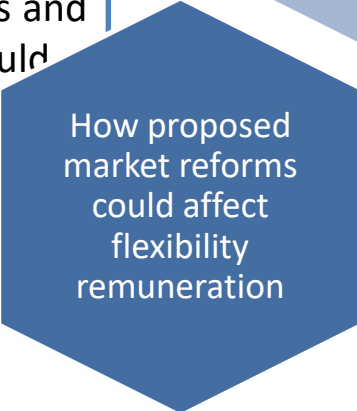


Preliminary thoughts for regulatory guidelines

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Market reforms are investigated (possibility of price-caps or two-stage markets). These reforms should consider the deployment of flexibility resources and how their role should be remunerated.



Preliminary thoughts for regulatory guidelines

Aggregators represent a great potential for flexibility deployment. New rules must be defined to increase the attractiveness of flexibility service provision by these participants.

Incentives for settling new flexibility resources

Storage Ownership

Regulation on aggregators and possibility to include flexibility in their basket

Services that can be provided by flexibility resources

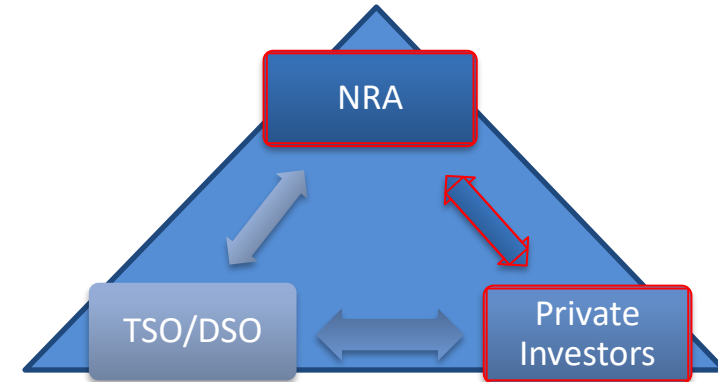
Markets flexibility resources can participate in

Products tailored for flexibility resources in RT-markets

How proposed market reforms could affect flexibility remuneration

Interactions with capacity markets

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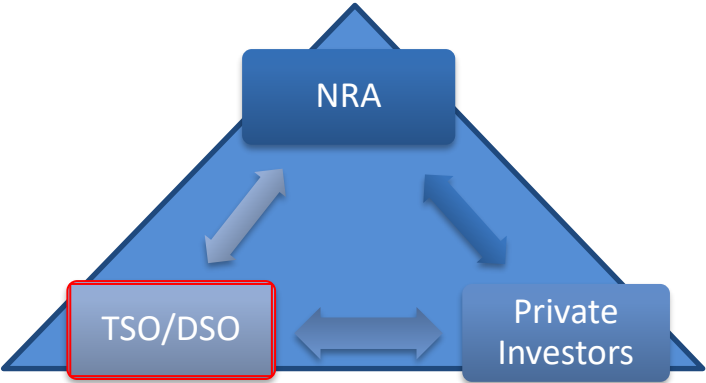


GUIDELINES

- ⇒ **Incentivizing private investors to deploy flexibility resources** (storage, DSM) and their participation in the real time markets to provide contributions to compensate RES variability;
- ⇒ Facilitate the **participation of flexibility resources in real time markets** by creating a set of specific products;
- ⇒ **Revise the entire market chain architecture so as to favorize participation from distribution** while discouraging exercise of market power;
- ⇒ **Design markets to provide clear and effective locational signals** to incentivize investments where really needed
- ⇒ **Paying attention to the new figure of the aggregator**, providing a credible and financially sustainable role for it.

Preliminary thoughts for regulatory guidelines

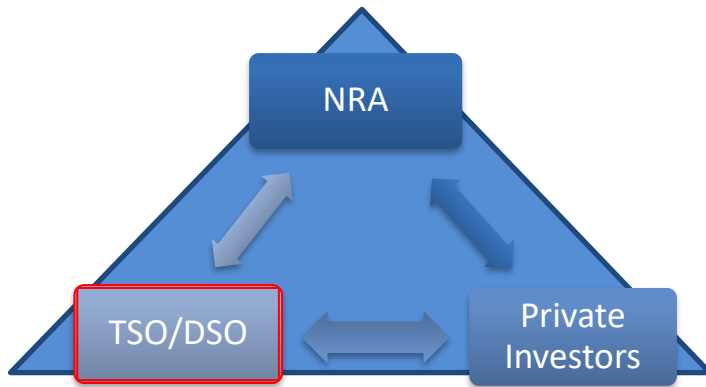
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Responsibilities and data exchange between TSO and DSO in planning

Cooperation between TSO and DSO must be strengthened.

Planning procedures should be modified to favor the deployment of flexibility resources, also keeping in mind TSO-DSO cooperation for acquiring resources from distribution.



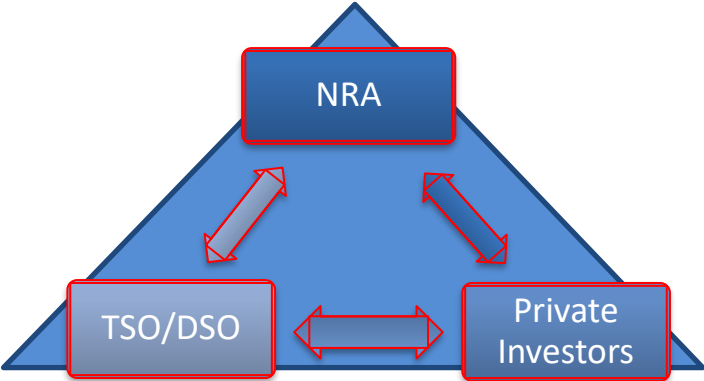
GUIDELINES

⇒ **Foster TSO-DSO cooperation** for acquiring resources from distribution.

Preliminary thoughts for regulatory guidelines

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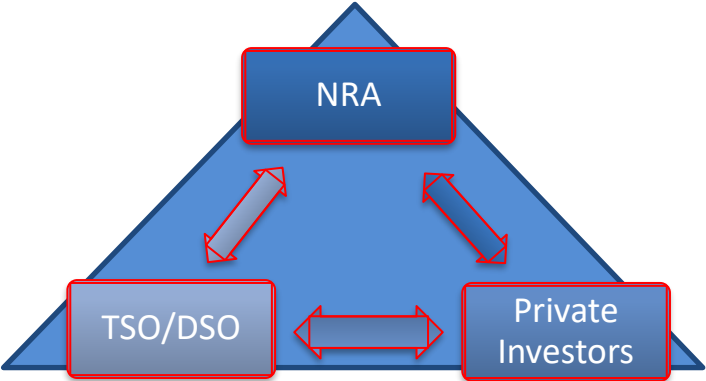
Cost-benefit analysis must take into account positive effects of flexibility resources (monetized and not-monetized effects). Importance must be given to GHG and other pollutant reduction.



Preliminary thoughts for regulatory guidelines

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GUIDELINES

⇒ **Pushing TSOs and DSOs to modify planning procedures** to favor the deployment of flexibility resources and better consider environmental costs

CBA update and internalization of environmental costs

Thank you...

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