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Adaptation of existing data to new modelling principles

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Outline

- The reason for data adaptation
- Workflow of the modelling
- Generic market
- Constrained market
- Statistics
- Conclusion

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The reason for data adaptation

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- Multi-output datasets – products are defined either as a reference product or a by-product
- Focus on by-products
- In case of by-products, there is no more differentiation between what is a waste and what is a by-product
- The main reason for adaptation of ecoinvent v2 data is that the **cut-off approach** is not applied anymore

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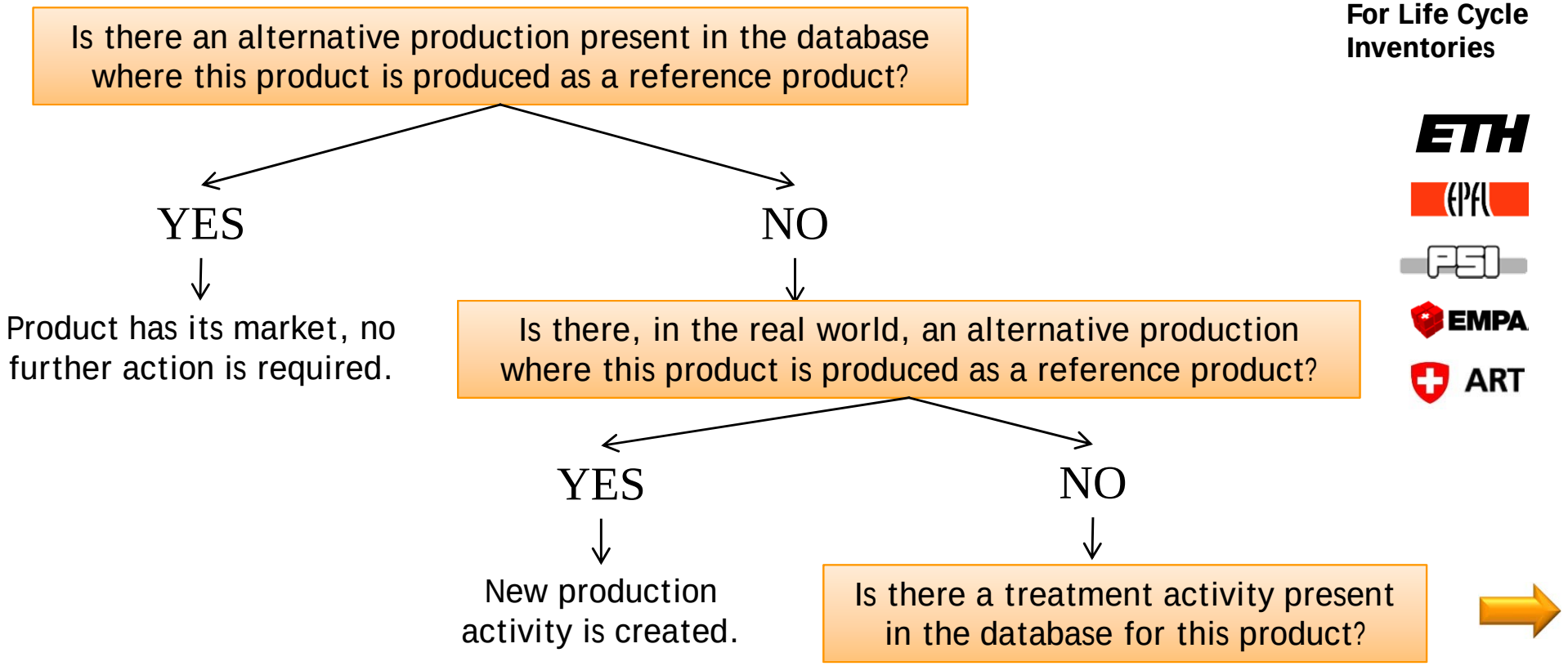
Workflow of the modelling

- Workflow diagram:



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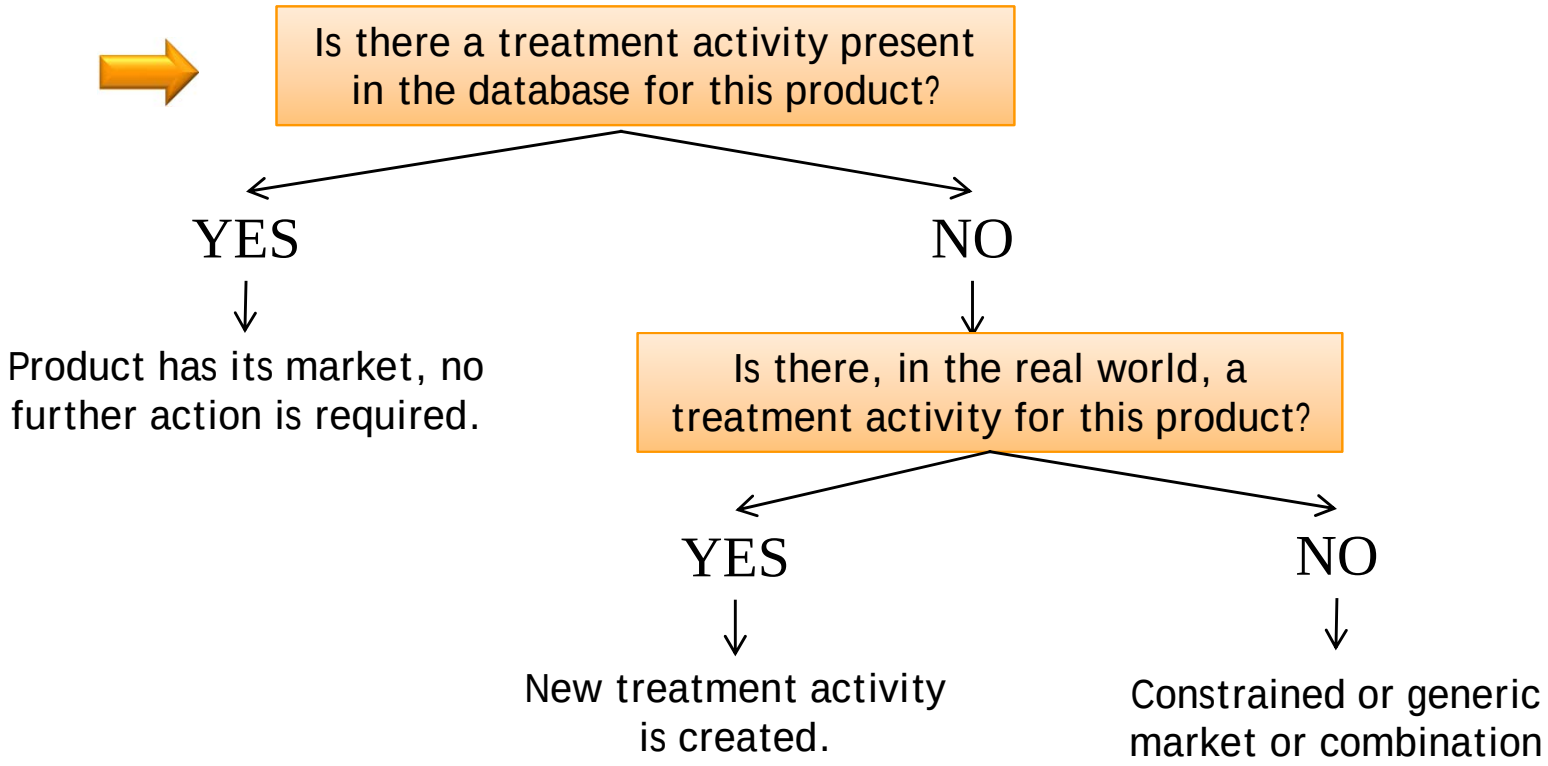
Workflow of the modelling

- Workflow diagram:



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Generic market

- Using a generic market allows different products with the same use to be traded on the same market
- Can be used during both in system models with partitioning and in system models with substitution
- **Example**: market for neutralizing agent

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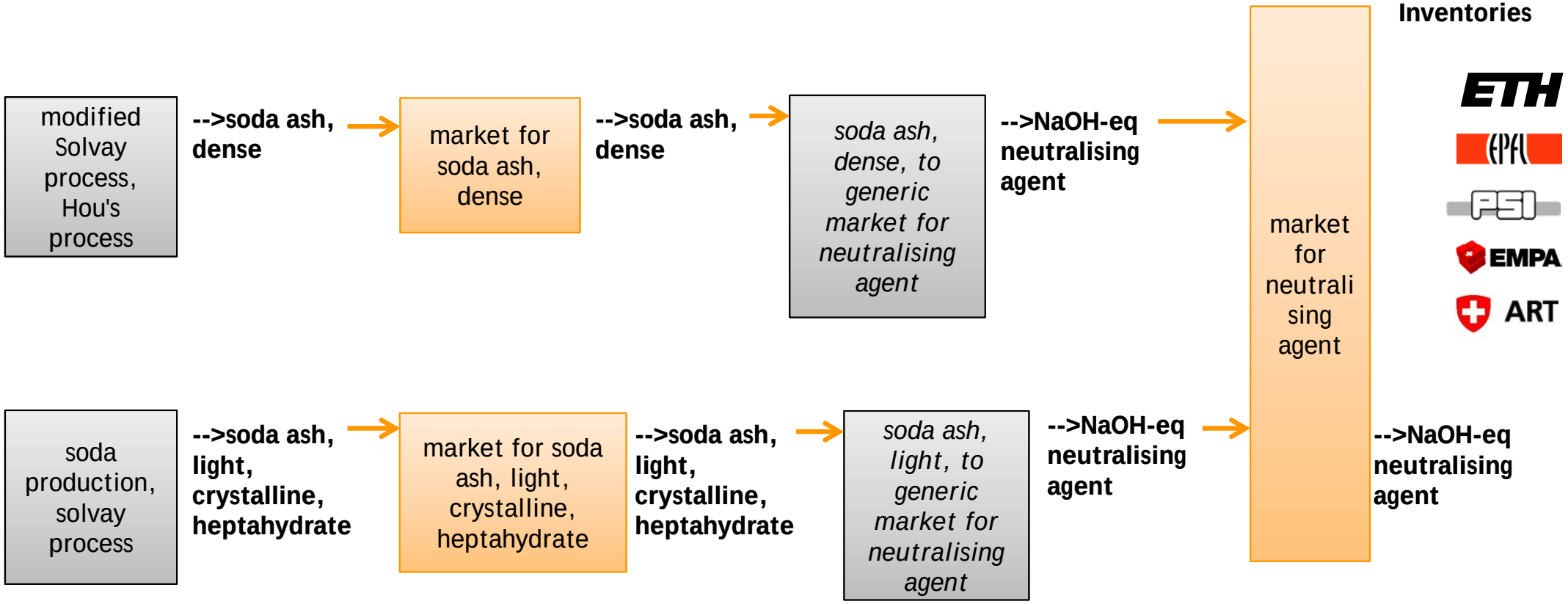
Generic market

- **Example**: market for neutralizing agent



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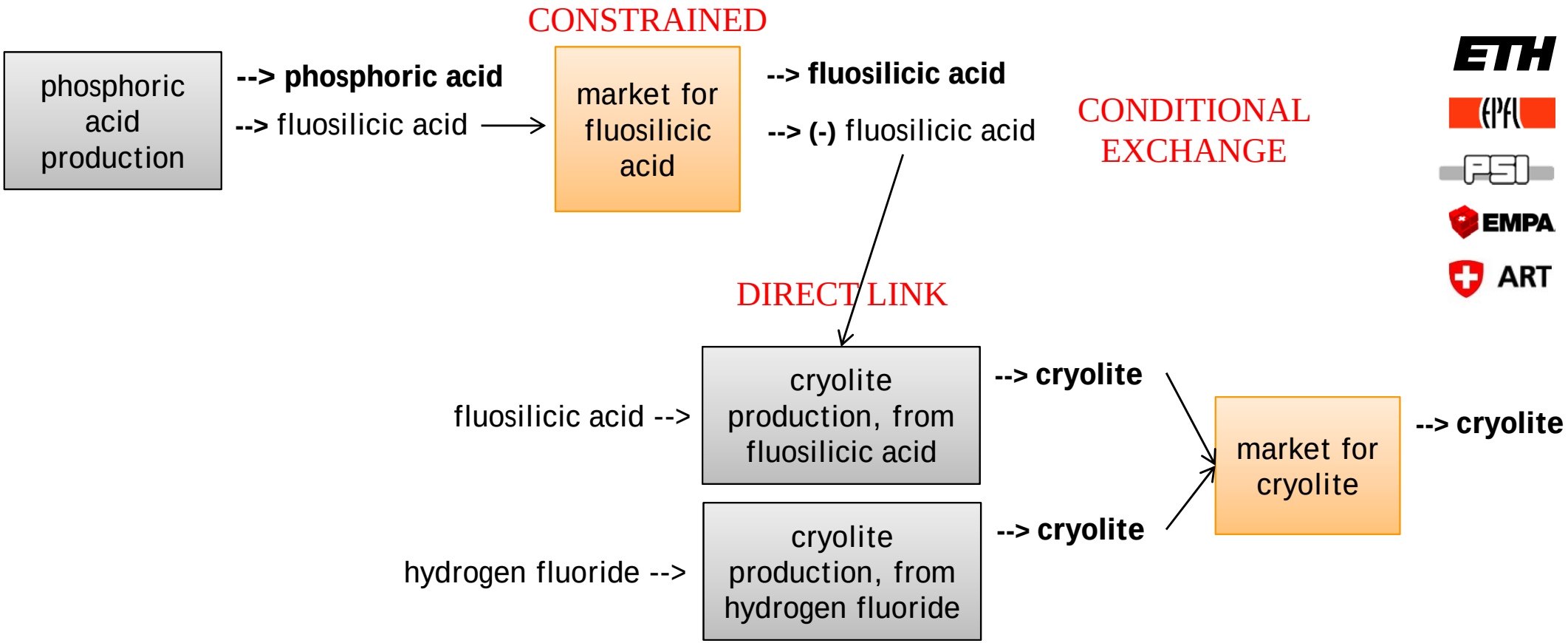
Constrained market

- is a market which is not fully elastic, i.e. when demand increases the supply will not increase



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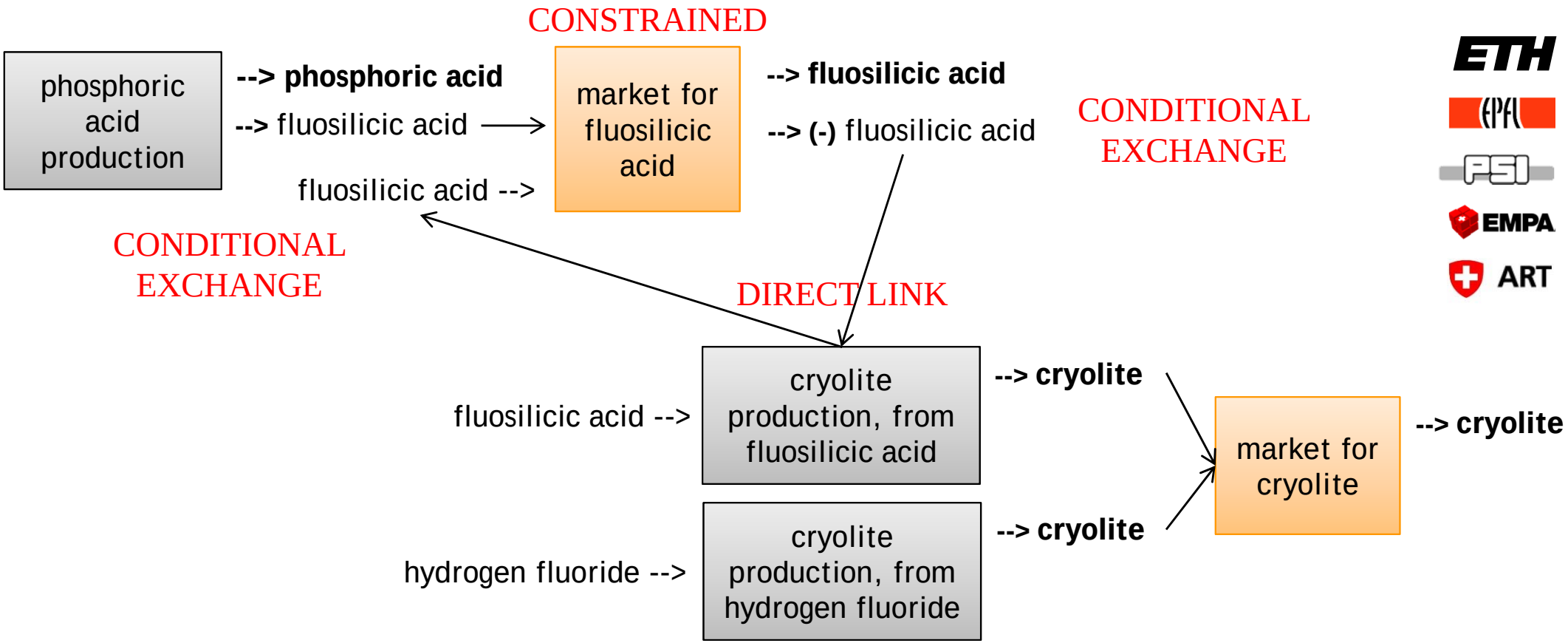

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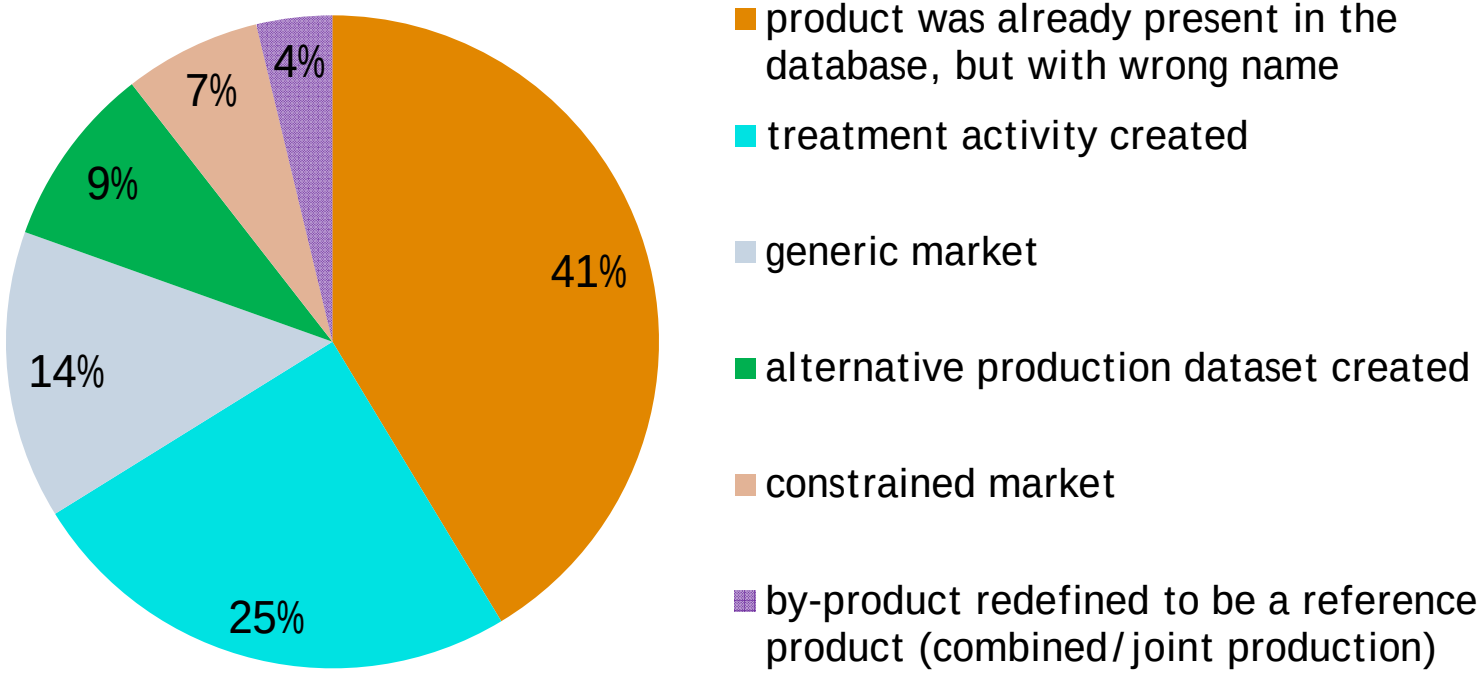
Statistics

- 227 multi-output datasets in the ecoinvent v2 with 577 products
- 135 products which were identified as by-products which needed to be taken care off



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Conclusion

- several data gaps were filled (new treatment datasets and new production datasets)
- the structure of the ecoinvent v3 database allows substitution of products
- products with the same use are traded on the same market

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