Simple, but not Simplistic
Challenges for qualitative sustainability assessments

Questions	major improvement -2	-1	0	1	major deterioration 2
Consumption of fossil energy	X				
Quantity of pollutants in aqueous effluents		X			
Use of water in regions with high water stress		X			

At the early stage of projects, process industry organisations, such as Solvay and Tata Steel, have found value in using *simple* qualitative screening tools to identify sustainability implications of their development options.

The qualitative approach, defined for the *STYLE scenario**, addresses the need to bring sustainability into early stage process development, when there is more "design freedom" and the opportunity to have a more significant impact on the final process. These tools can also stimulate project members to think about sustainability in ways they may not have considered before (*e.g. Instead of selling this product, can we lease it to customers? Can we avoid manufacturing routes which produce intermediates that are classified as harmful to human health?*).

Issues
- It can be difficult to balance keeping the tool 'simple', whilst still providing sufficient coverage of the three pillars of sustainability.
- Questionnaires tend to be specific to a sector or align with a company's own priorities, so are harder to transfer to different process sectors.
- Answering specific sustainability questions can be harder than listing materials used in a product – ie energy/mass balances can be straight-forward data collection exercises, whereas answering a qualitative question often requires a degree of subjectivity and thus prior knowledge of the subject. It is also not straightforward to write a question that everyone in a project team will interpret in the same way.

Recommendations
- A general cross-sector tool could be developed, but sustainability experts should set up the tool for different organisations (either internal or sector-specific setup).
- Documentation should explain the concepts and methodologies used in the tools, to help non-experts understand why some questions are important, leading to better-considered design choices. Training of up to half a day is a reasonable prerequisite for using such tools.
- Questions should be specific and use clearly-defined concepts, focusing on technological aspects rather than sustainability terminology, e.g. "*Will this reduce emissions of organic material to water?",* rather than asking about "*impact on freshwater eutrophication potential*"

For more information see www.spire2030.eu/style

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STYLE
SUSTAINABILITY TOOLKIT FOR EASY LIFE-CYCLE EVALUATION

SPIRE PROJECT