Bowtie Visualization Lessons Learned

During our attempt to create an interactive bowtie visualization through the online Reactflow Playground as suggested, we were able to create the nodes but what confused us was the ability to import images, change the node colors, configure ElkJS, and most importantly make the nodes interactive with expand/collapse functionality. Despite tutorials suggesting a built-in code editor, the interface we accessed only displayed "Nodes & Edges" controls without any visible place to insert or modify actual code. This created uncertainty about whether the playground supported custom logic or was intended only for simple drag-and-drop demonstrations.

1. **The React Flow playground (free) is not suitable for building fully interactive or coded diagrams**—it is primarily a visual demo tool.

2. **React Flow requires moderate React experience**, and beginners may struggle without guided examples tailored to their skill level.

In preparing this bow-tie risk visualization in Figma for presentation, we identified several areas for improvement. For one, the model could be richer: adding more threats and barriers would better reflect our full risk-management picture. Ideally, each barrier would collapse and expand in relation to the specific threat or consequence it's linked to, but our limited experience with Figma made that difficult. Instead, we settled on hiding all the barriers together, rather than toggling each individually.

We also see opportunities to enhance the visual design: for instance, using a broader color palette to distinguish active versus passive barriers would help clarify their roles. It would also be useful to allow users to expand a barrier to view detailed information (why it exists, how it works), rather than relying solely on mouse-over tooltips.

Finally, a key lesson we learned is that creating a bow-tie visualization isn't just about painting the big picture — it's also about tailoring the view for the audience. Depending on who's watching, different aspects of the diagram matter. Some executives may want a high-level view, focusing strictly on major threats and consequences. Others, especially those with a deeper operational or risk background, may want to dig into every barrier and control. Finding the right balance between detail and clarity is essential.