

Impressive ACDC

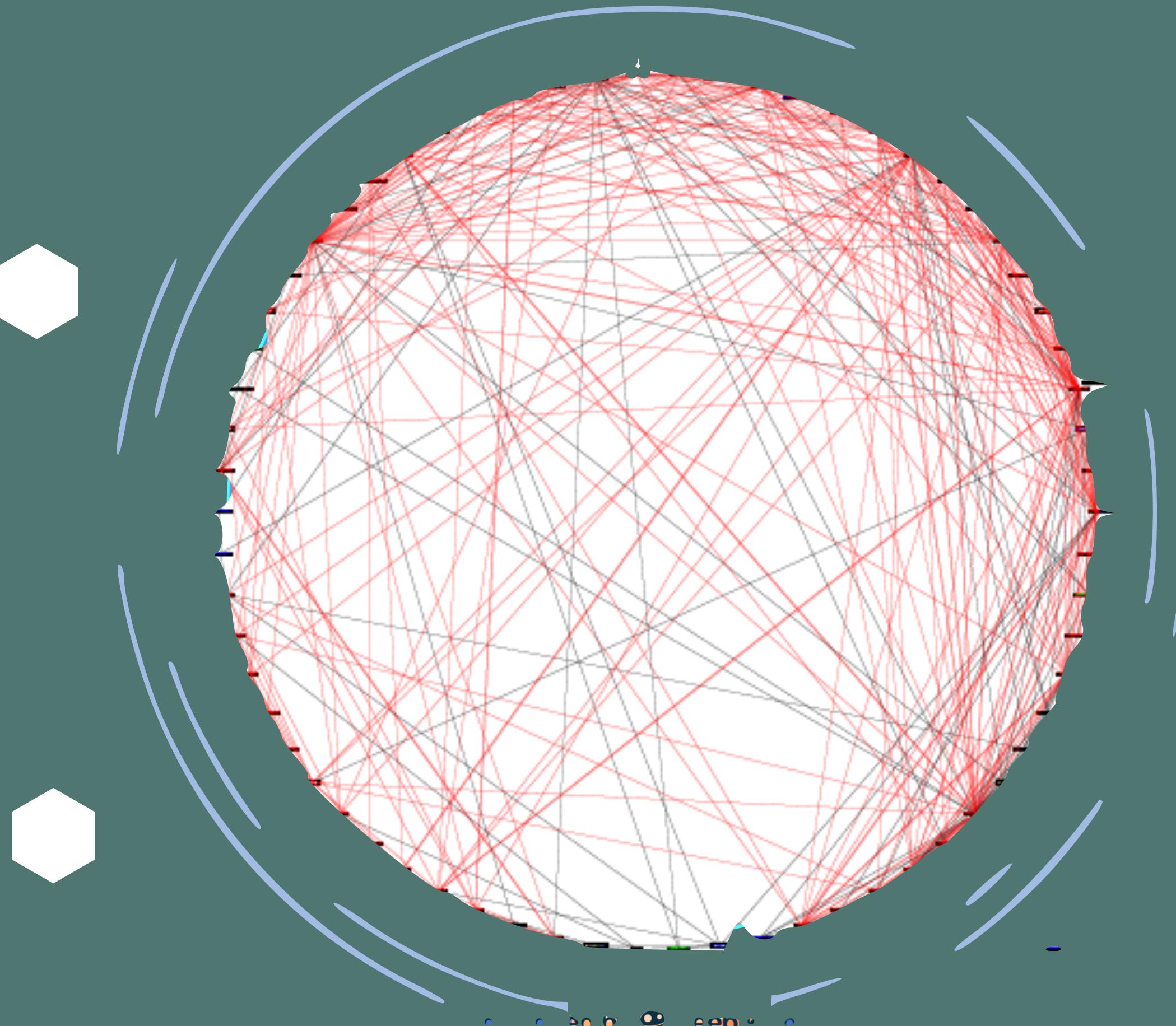
Interactive dependency view with D3

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Problem of Original Visualization

**Components
all look the same**



**Too many points
and lines**



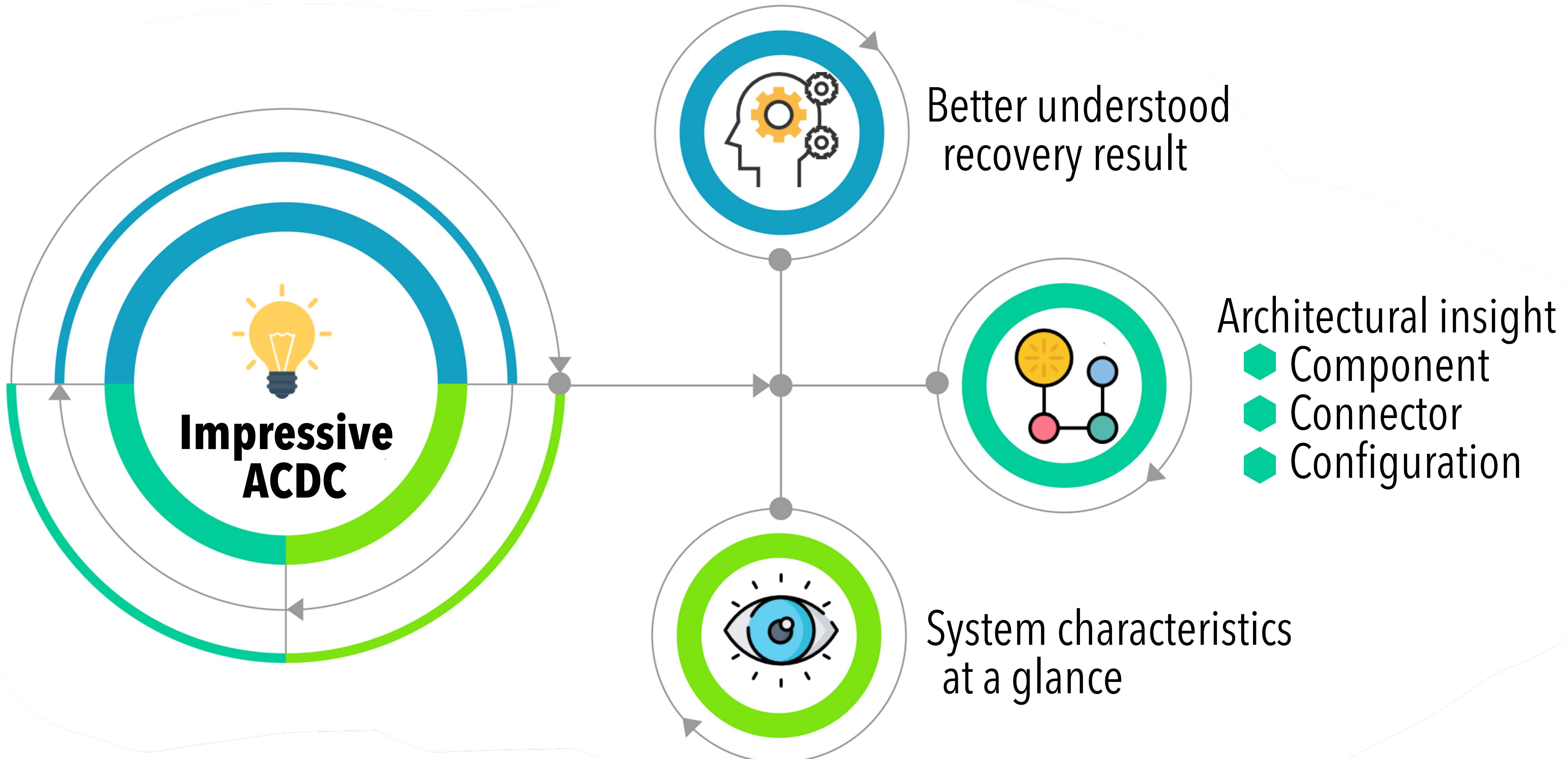
**Unstructured hair
ball effect**



**Hard to make
sense of**



Goal of Our Visualization



Design



Link strength



- Relationships are not equal
- Cluster size may effect strength

Component importance



- Clusters have different importance
- Show the difference

Component community



- Related components form communities
- Use force-directed graph



Cluster Dependency View



Cluster Dependency View



Component: Star

**Dependency:
Gravitational Force**

**Community:
Star System**

Cluster Dependency View



DEMO

Class Bubble Char



Functionality:

Understanding Component functionality through its classes

Class Size: Proportional to SLOC

Class colored: RELAX result

RELAX Radar Chart



Consistency:

Relative consistent view across different versions

Color:

Component colored by majority vote of class labels

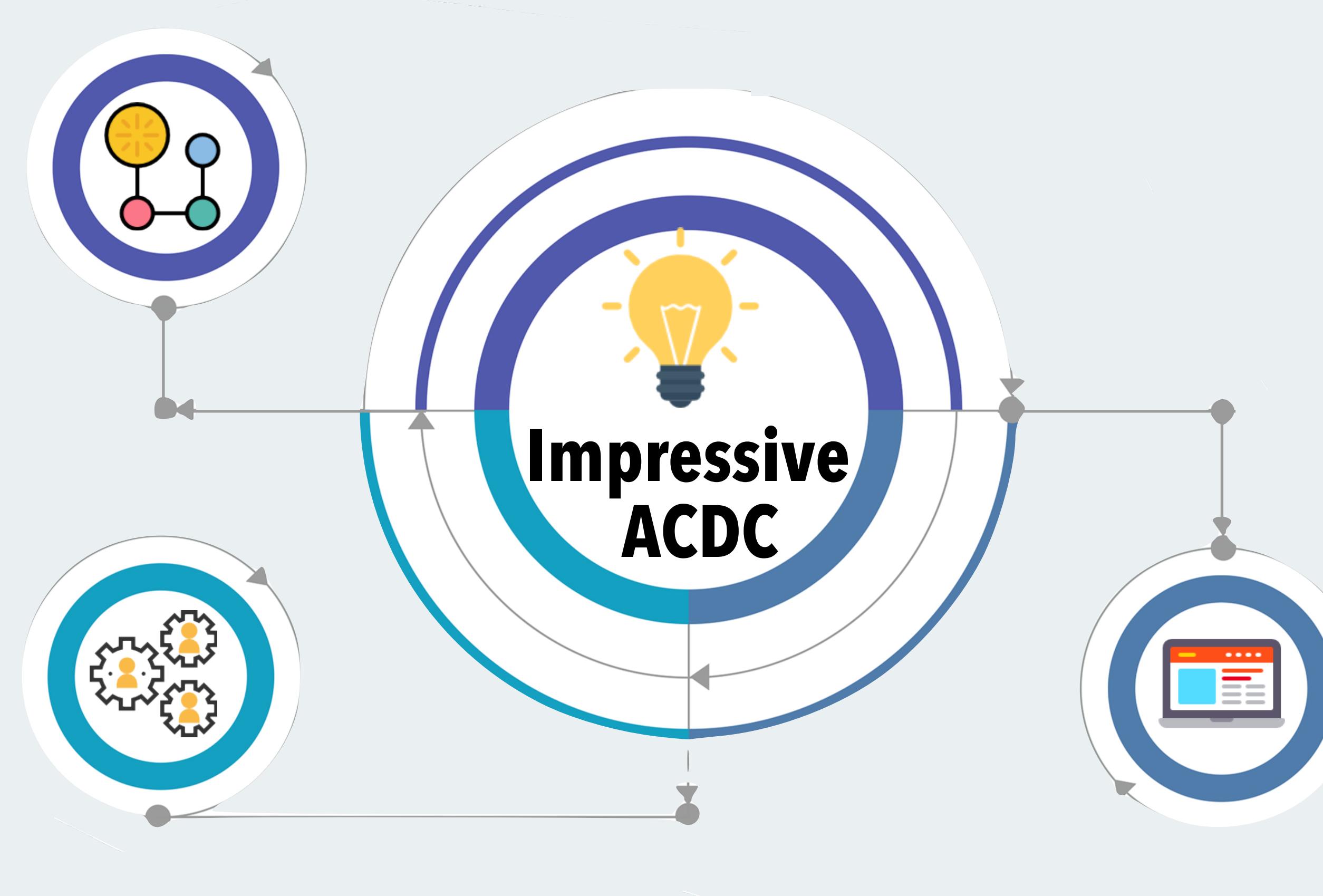
Comparison:

Useful for comparison between versions

Visualization Features

Further process ACDC result for deeper insight

Incorporate RELAX, ACDC, and UCC results





Thank You