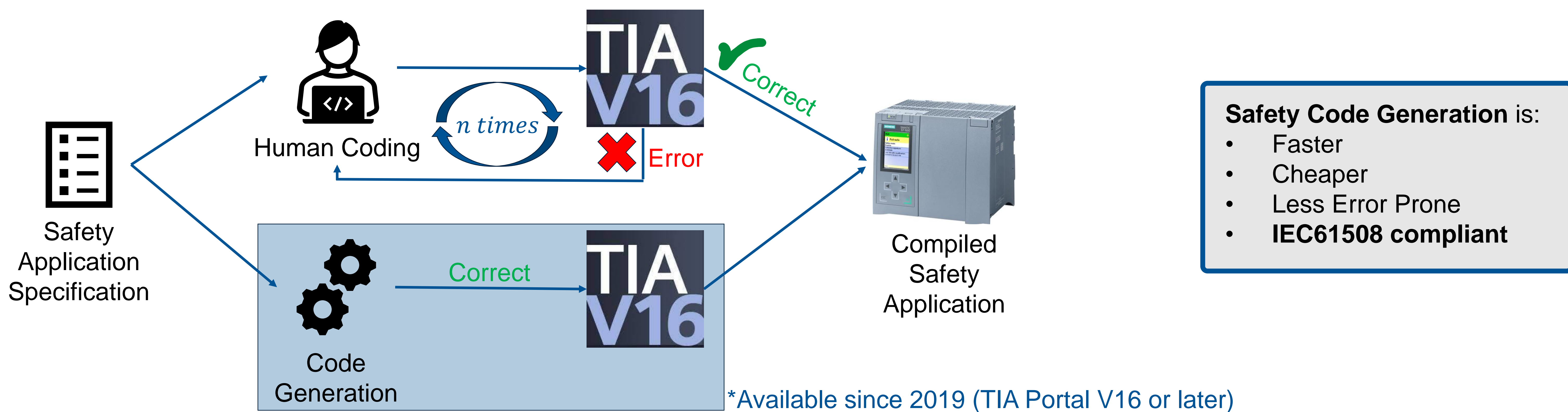


Context: Safety Application design for PLC

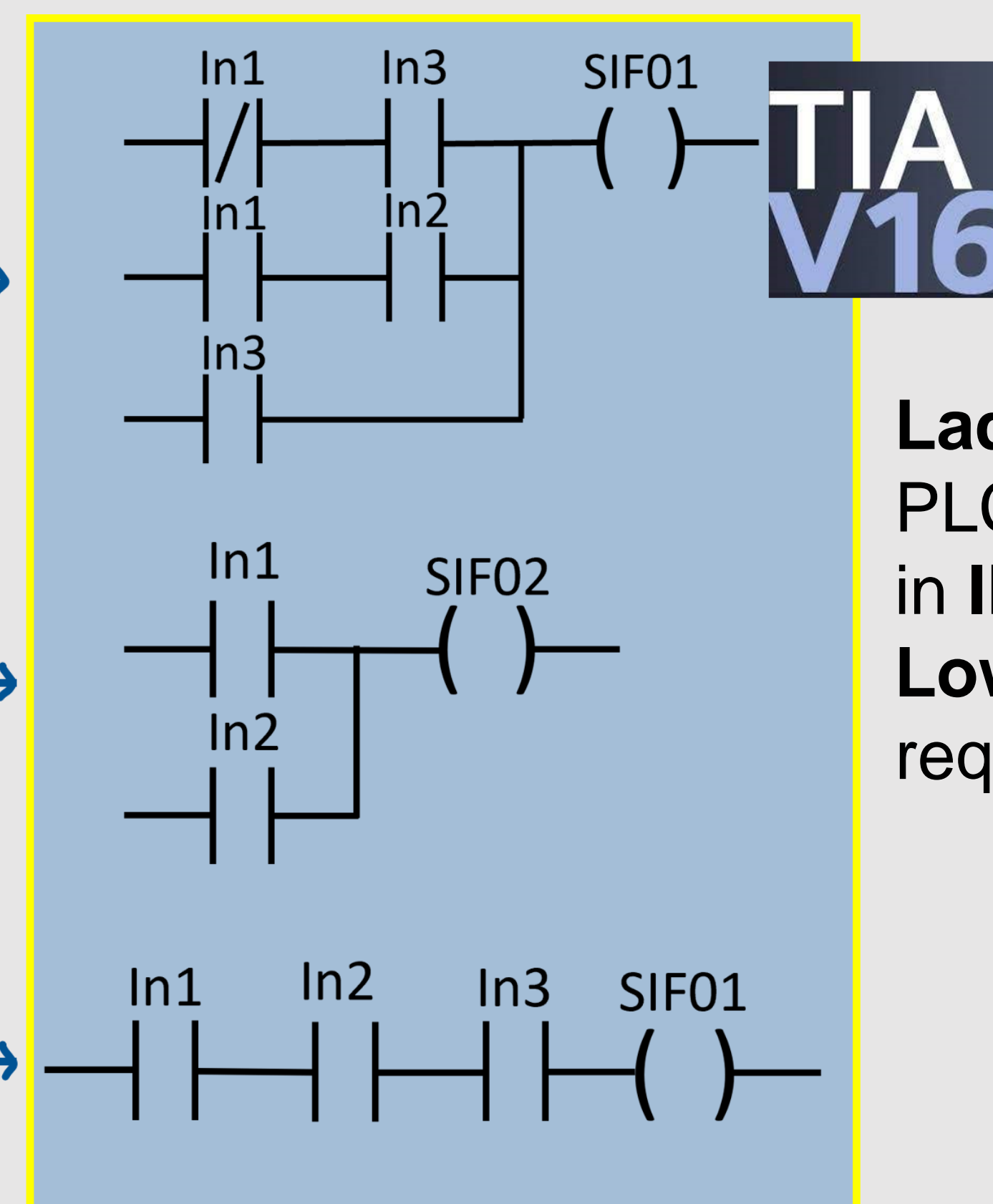
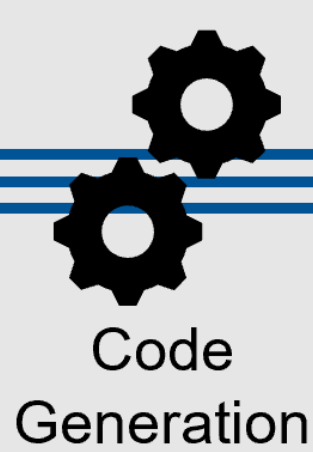


CEM-to-LD: A code generation tool from CEM to Ladder Diagram

Using **Cause-Effect-Matrices** as specification method, there is an unambiguous 1-to-1 relation between specification and **Safety LD Code**

Cause-Effect-Matrix (CEM) is one of the specification methods recommended by **IEC61511**, it is commonly used to design **Interlocks**

	SIF 1	SIF 2	SIF 3
In 1	NA1,A2	X	A1
In 2	A2	X	A1
In 3	X,A1		A1



Ladder Diagram (LD) is one of the PLC programming languages defined in **IEC61131:3**. Its Safety version is a **Low-Variability-Language (LVL)** as requested by **IEC61508**

Full Workflow

Code Verification Workflow

