TRL/Prototype/demonstrator (1/2)

- Align with EU definitions.

- A **prototype** is an early version used internally for development and testing, focusing on feasibility and technical validation (TRL4/6).

- A **demonstrator**, on the other hand, is a more advanced and refined version, used externally to showcase the technology's capabilities in a real-world or operational environment (TRL6/8).

- To move from TRL 3 to TRL 7, one needs to develop a prototype and then evolve it into a system prototype that can be demonstrated in an operational environment. The progression involves:
  - Developing a basic prototype (initially in TRL 4 and 5) to validate the technology's feasibility and function.
  - Refining this prototype and demonstrating its performance in a relevant environment (TRL 6).
  - Further advancing the prototype to operate in an actual operational environment (a demonstrator), demonstrating its full capabilities in real-world conditions (TRL 7).

- **Conclusion**: If our objective is to move from TRL 3 to TRL 6, then **we are going to do PROTOTYPES**.

TRL/Prototype/demonstrator (2/2)

- **Prototype**
  - **Purpose**: A prototype is primarily created to test and validate the design and functionality of a new technology or product. It is used to explore the feasibility of the concept and to identify any issues or improvements needed.
  - **Development Stage**: Prototypes are typically developed in the early stages of the technology development process. They are often associated with lower Technology Readiness Levels (TRLs), usually around TRL 4 to 6.
  - **Fidelity**: Prototypes may not have the full functionality or may not be built with the final materials or processes intended for the final product. They are often less refined and are used for internal testing and development.
  - **Focus**: The focus with prototypes is on testing specific aspects of the technology, such as functionality, performance, or identifying technical challenges.

- **Demonstrator**
  - **Purpose**: A demonstrator is a more advanced version of the technology or product that is used to show its capabilities in a relevant or operational environment. It serves to demonstrate the technology to stakeholders, potential customers, or for further development and testing.
  - **Development Stage**: Demonstrators are developed at a later stage, closer to the final product. They are associated with higher TRLs, typically around TRL 6 to 7, and sometimes even TRL 8.
  - **Fidelity**: Demonstrators are more refined and closer to the final product in terms of materials, design, and functionality. They are built to showcase how the technology will perform in real-world conditions.
  - **Focus**: The focus of a demonstrator is on showcasing the technology's full capabilities, reliability, and readiness for market or operational use. It is also used to attract further investment, partnerships, or for marketing purposes.