CENTRALIZED PROJECT MANAGEMENT SYSTEM

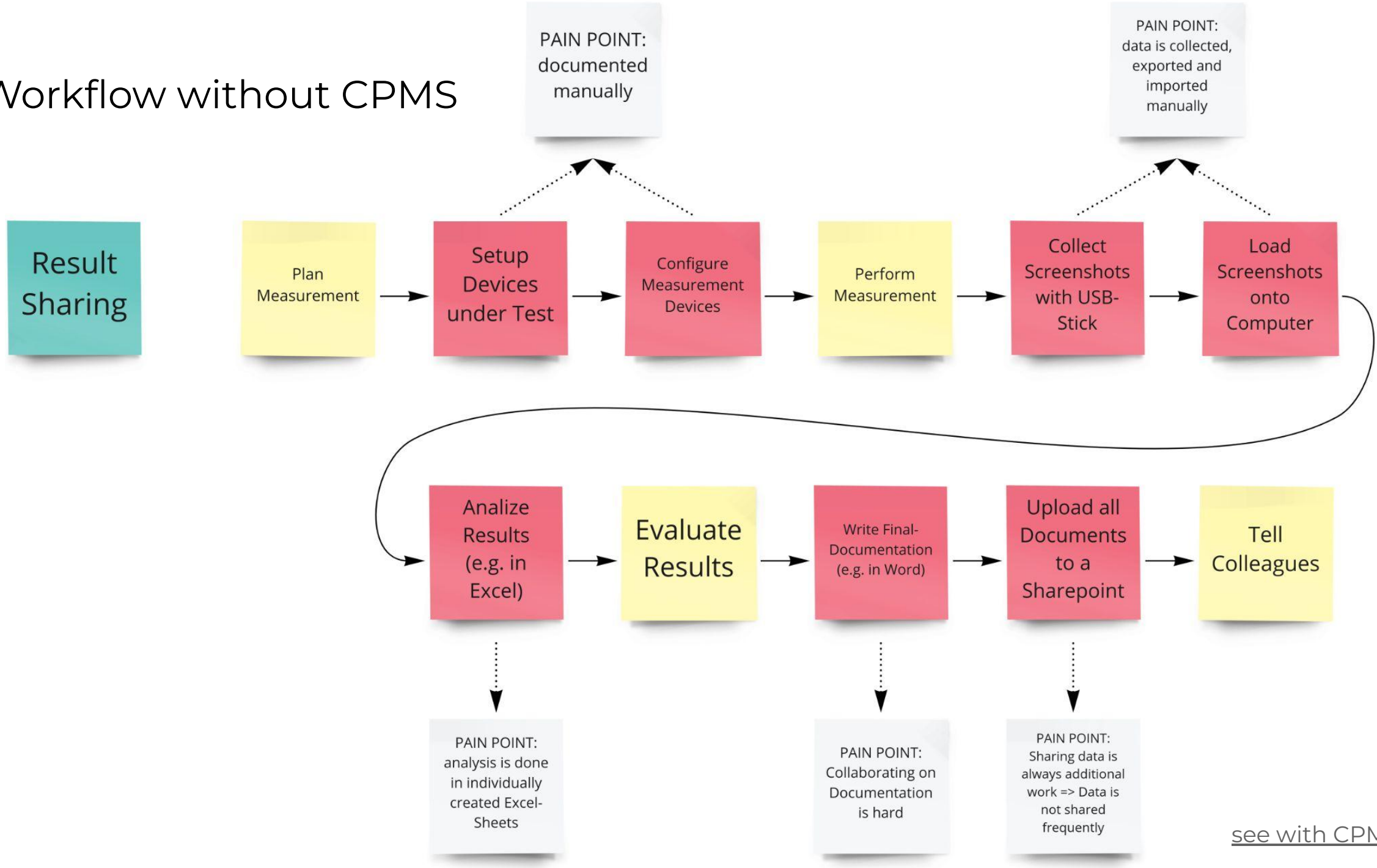
What is it?

CORE CONCEPT

see extended Concept

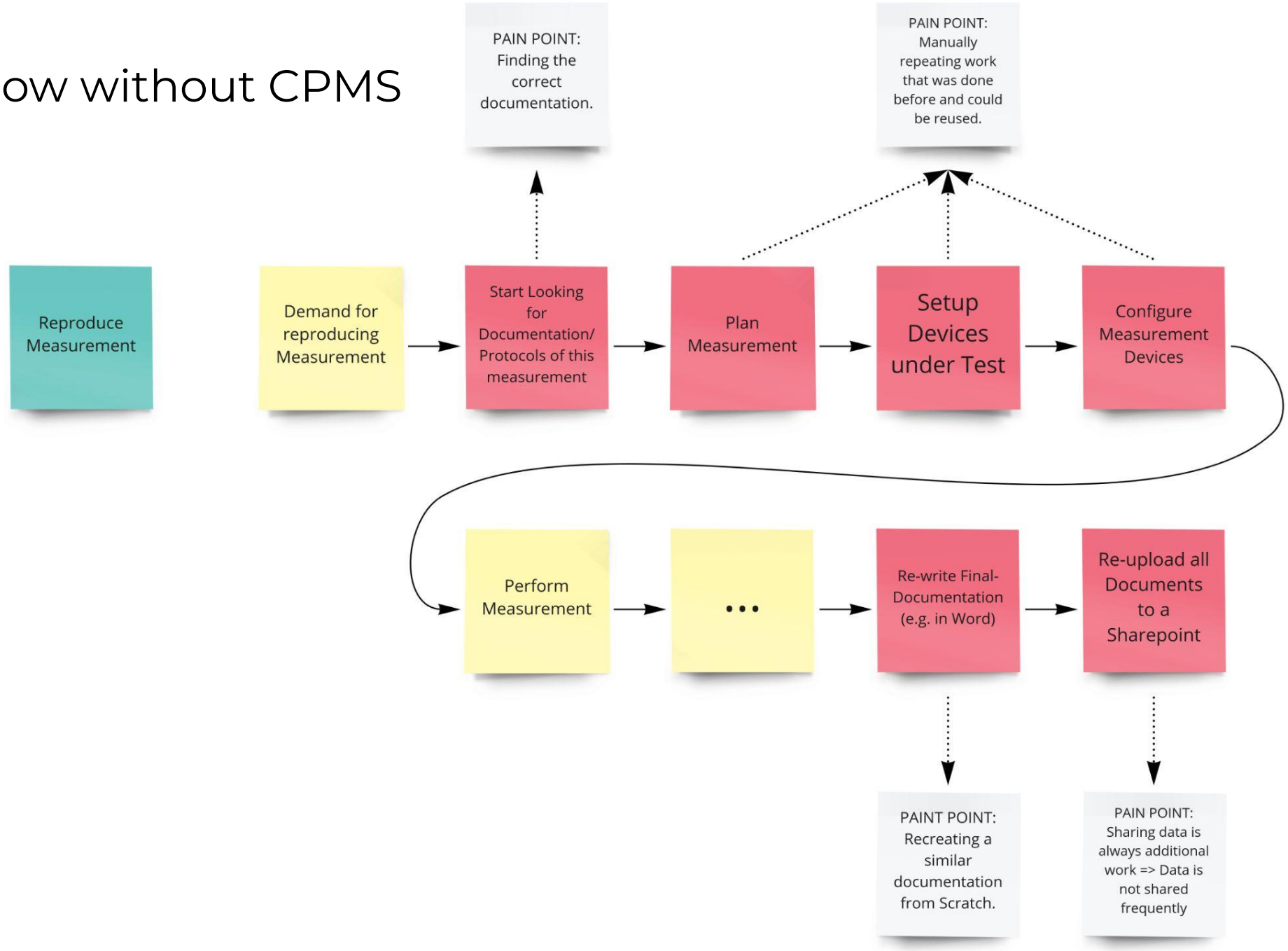
How might we offer engineers in the field of test and measurement easy creation of comprehensive documentation that seamlessly integrates into the workflow?

Workflow without CPMS



see with CPMS

Workflow without CPMS



see with CPMS

Creating and updating good (understandable, exhaustive) documentation is a lengthy, elaborate, annoying process.

Reproducing measurements is cumbersome and requires high level of prior knowledge.

Centralized Project Management

Most recently active Projects

Research Project “Empire”

- Data receiver with Chip EN-017617
  A. Helbert
- Data receiver with Chip AN-68434
  Dr. M. Friedman, A. Helbert, You

Other Projects

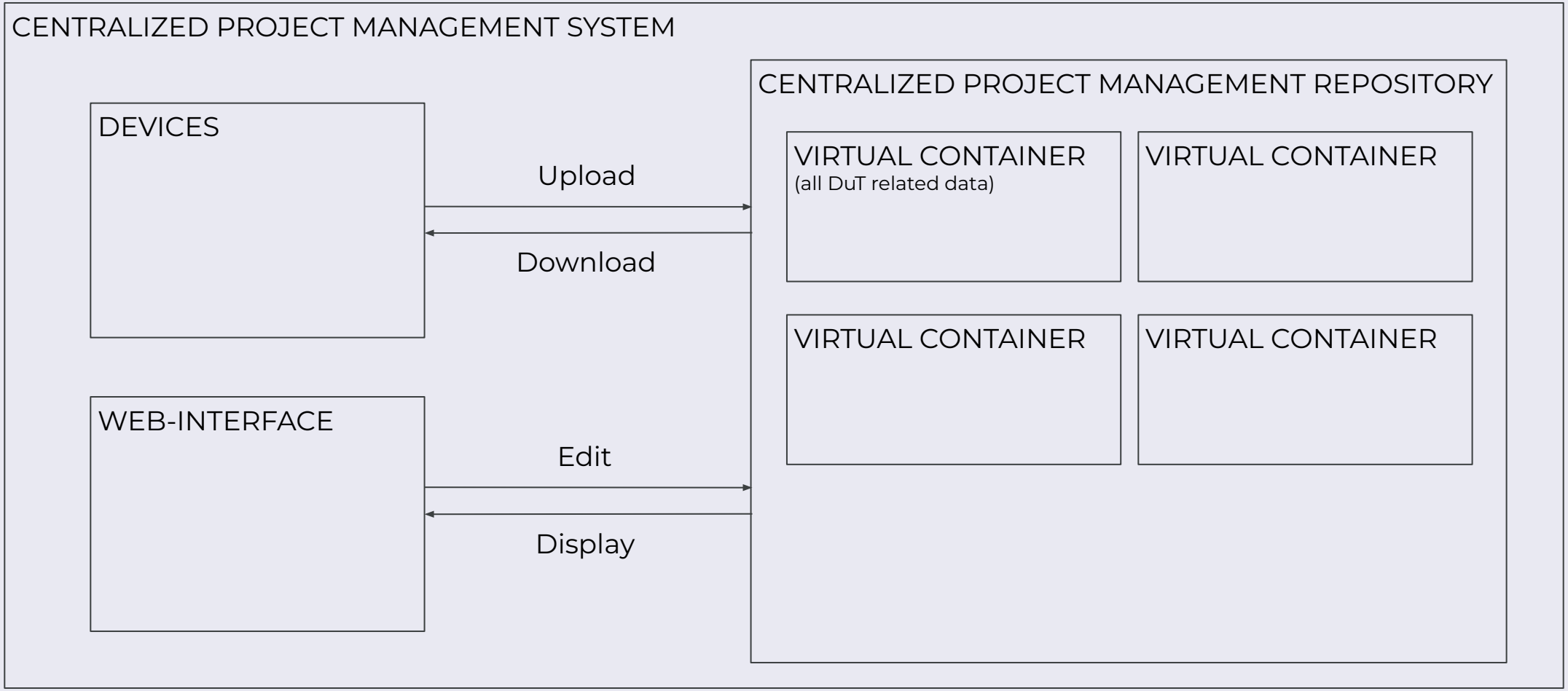
Project Marlson

- Testset Alfa
  H. Charles, You
- Testset Bravo
  M. Matthes

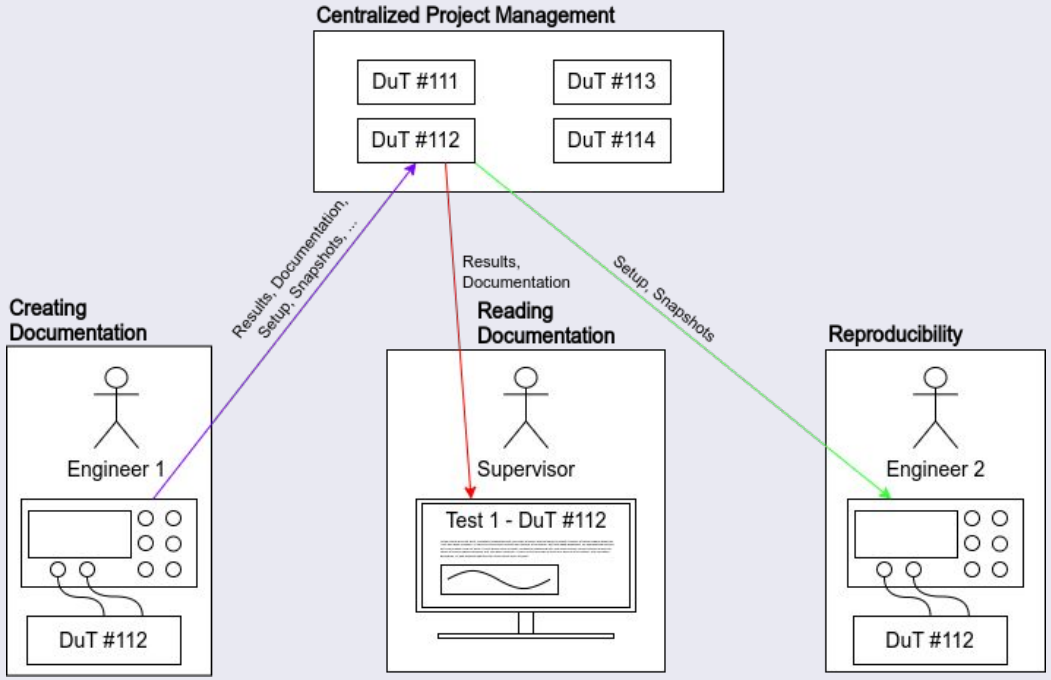
CENTRALIZED PROJECT MANAGEMENT SYSTEM

see full Proto

Terminology



Functionality



- Creating Documentation:
  - While measuring screenshots, configs, pictures of setups, and whatever info we can get out of the device are uploaded to a folder dedicated to the specific measurement on that specific DuT:

    CPMR
    |- Device 1
    | |- Measurement 1
    | |- Measurement 2
    |- Device 2
    |- ...

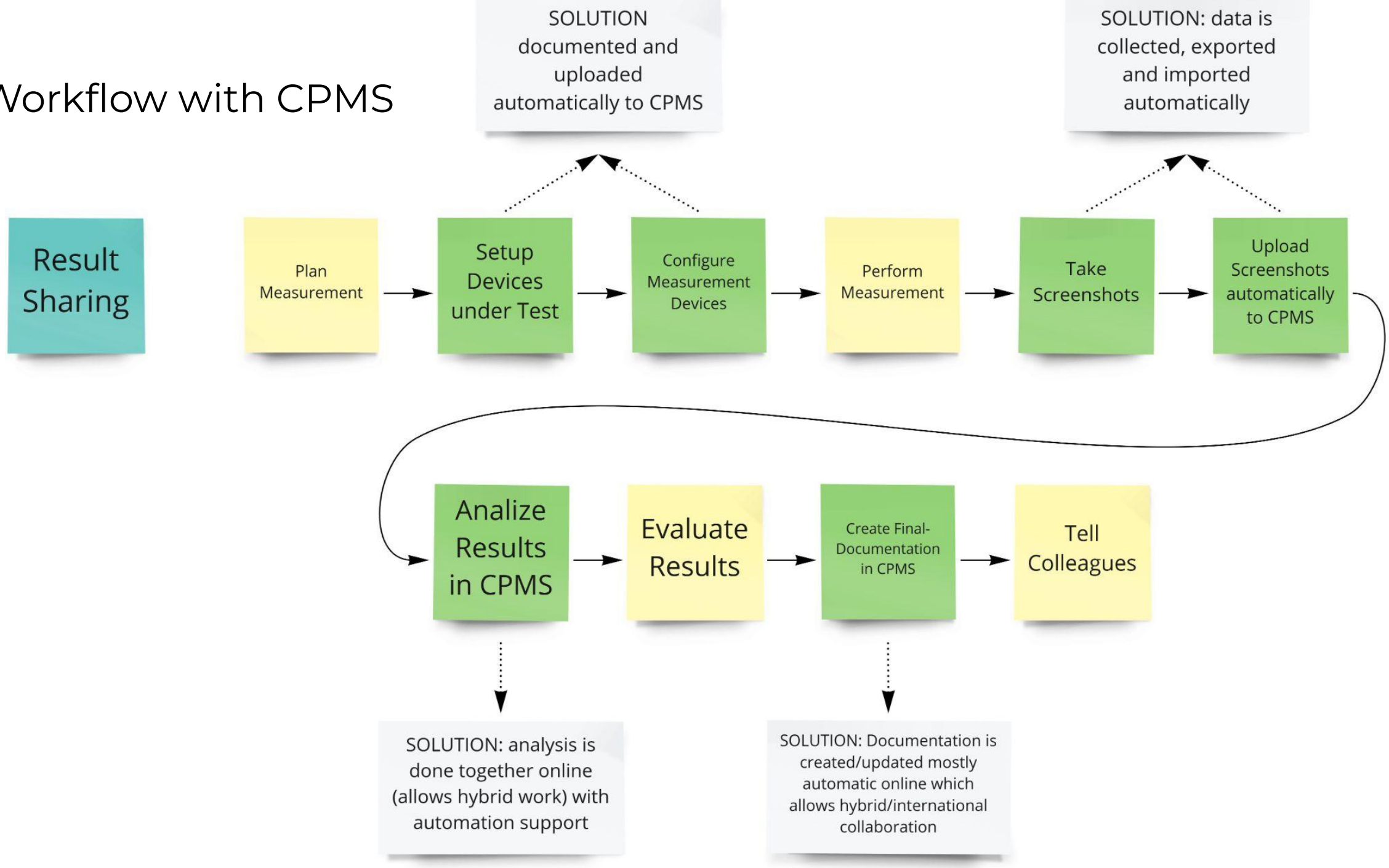
    => collecting data for documentation becomes a lot easier and quicker, thus more exhaustive

  - Collected data is used in an automated (or at least enhanced) documenting workflow, that creates (part of) the documentation on its own
    => speeds up creation of documentation & is less error prone

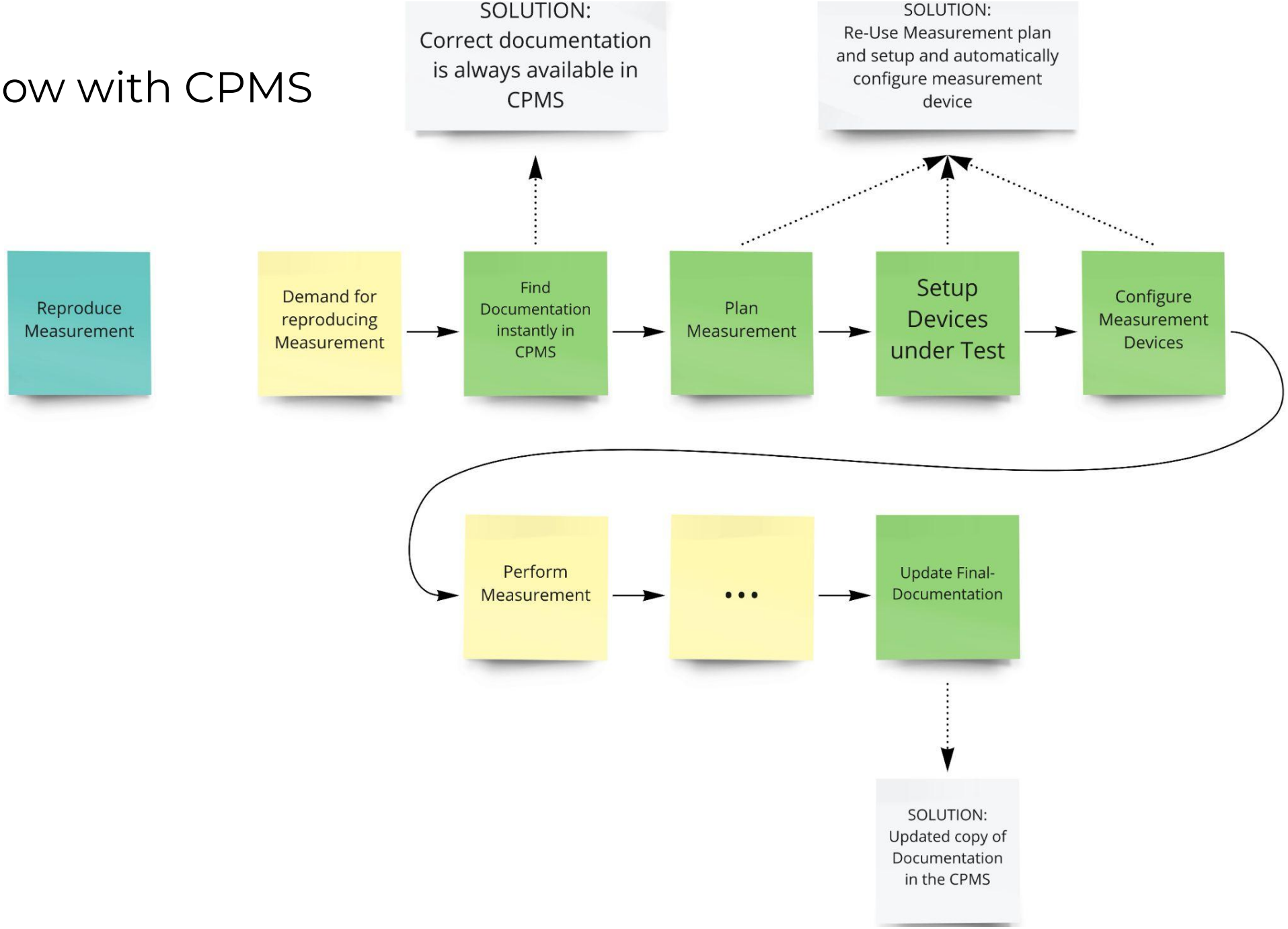
- Reading Documentation:
  - Since creating documentation is part of the measurement, the CPMR always contains up-to-date data
    => good for tracking progress and understanding a project
  - Documentation is always easily accessible from everywhere

- Reproducibility:
  - Since documentation is exhaustive (configs, pictures of setup, ...), measurements are easy to reproduce
  - Automated setup of device by using the configs from the CPMS makes reproducing measurements easier and quicker

Workflow with CPMS



Workflow with CPMS



TECHNICAL SPECIFICATIONS

CPMS

MUST

Pull measurement results from scope (automatic)

Pull configuration from scope (automatic)

Integrate data into documentation templates

Text editor features

NICE

Push metadata to scope
(“Remote config”)

Documentation search/aid across projects

Project/Documentation templates

COOL

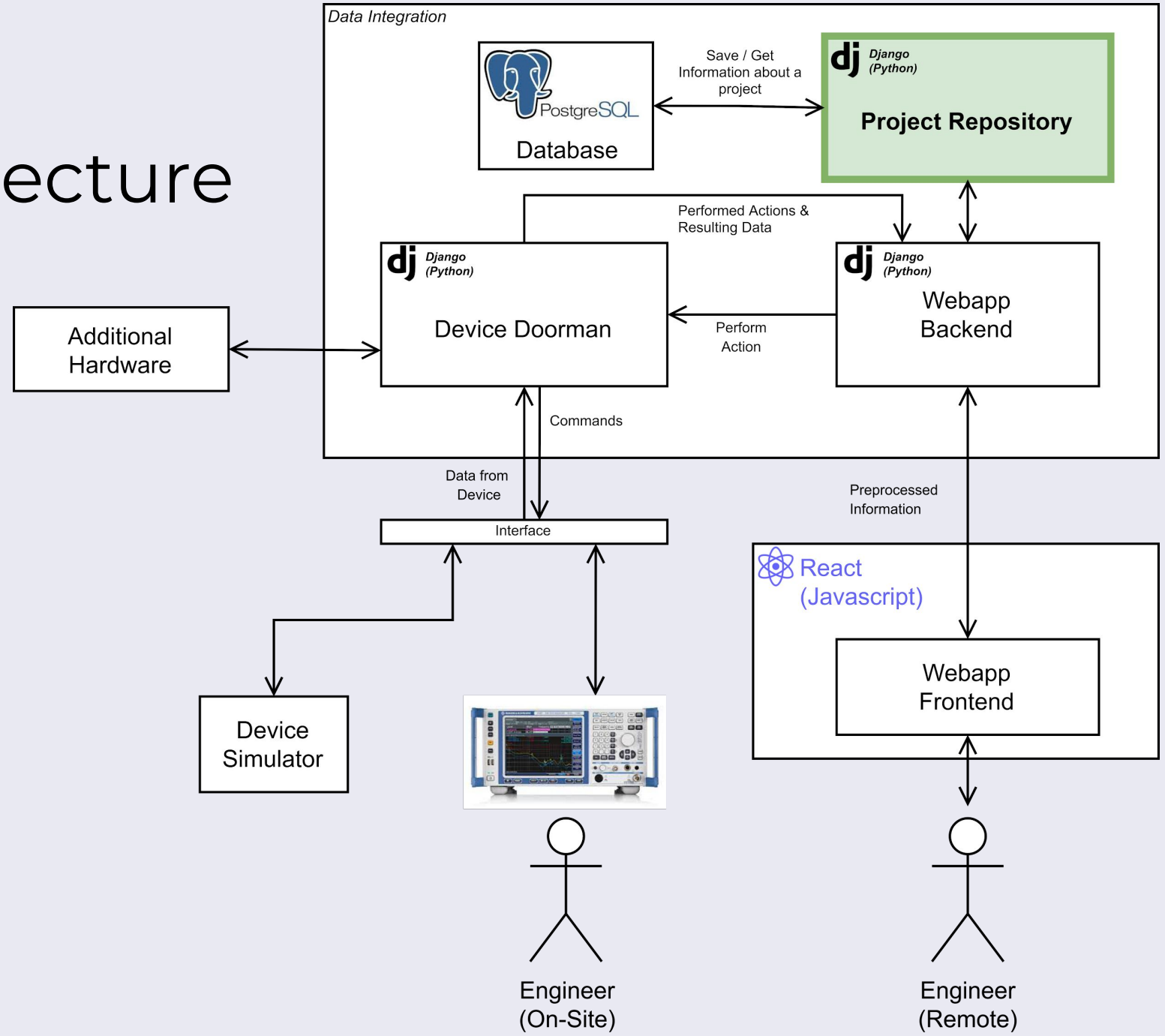
Click to autogenerate parts of documentation

Devices overview & administration

Export + Download (PDF)

Actions on UPNP Scan

CPMS
System Architecture



User Journeys (SW-Dev)

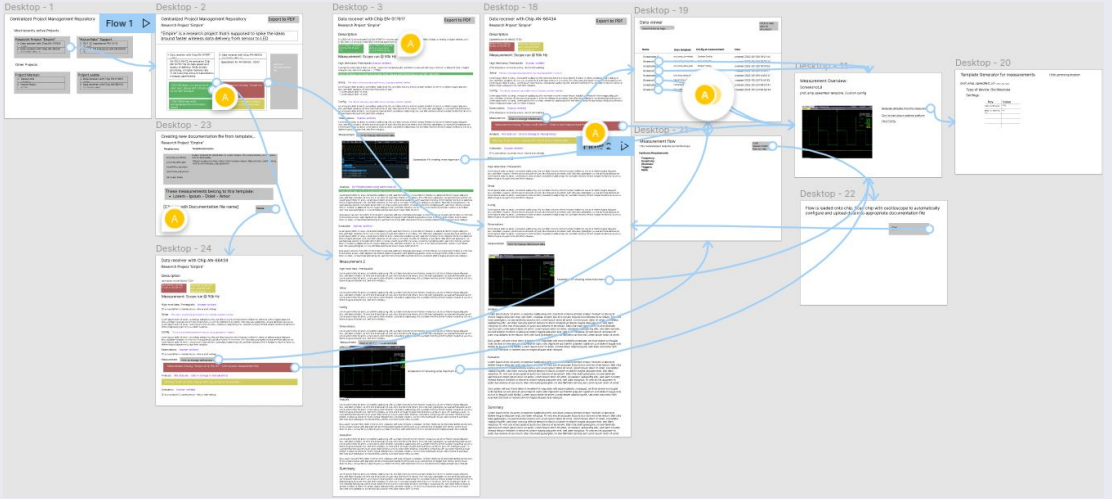
8 Text editor features

- Clap in/out text boxes (if they're finished, or per default or smth.
  Added by ADimeo
- As a specialist I want to be able to pop in/out text blocks so they don't distract me from working
  Added by ADimeo
- As an editor I want to be able to add arbitrary TODO-comments so collaborators know where to edit
  Added by ADimeo
- As a documenter I want basic editor functions like editing text so I can write documentation
  Added by ADimeo
- As the guy who needs to sell this prototype I want to see texts/selections stating that something was generated by AI so I can imply that this is feasible for this prototype
  Added by ADimeo

5 Pull Measurement Results from scope (automatic)

- Via "Connect with scope" button on documentation page
  Added by ADimeo
- Add "import from online" button w. file browser?
  Added by ADimeo
- As a tester I want measurement data to be automatically uploaded to the cloud
  Added by ADimeo
- As a documenter I want to have a way to import measurements saved into the cloud into my documentation
  Added by ADimeo
- As a tester I want to be able to set my device to some documentation document so that the data is uploaded there automatically
  Added by ADimeo

Figma-Prototype

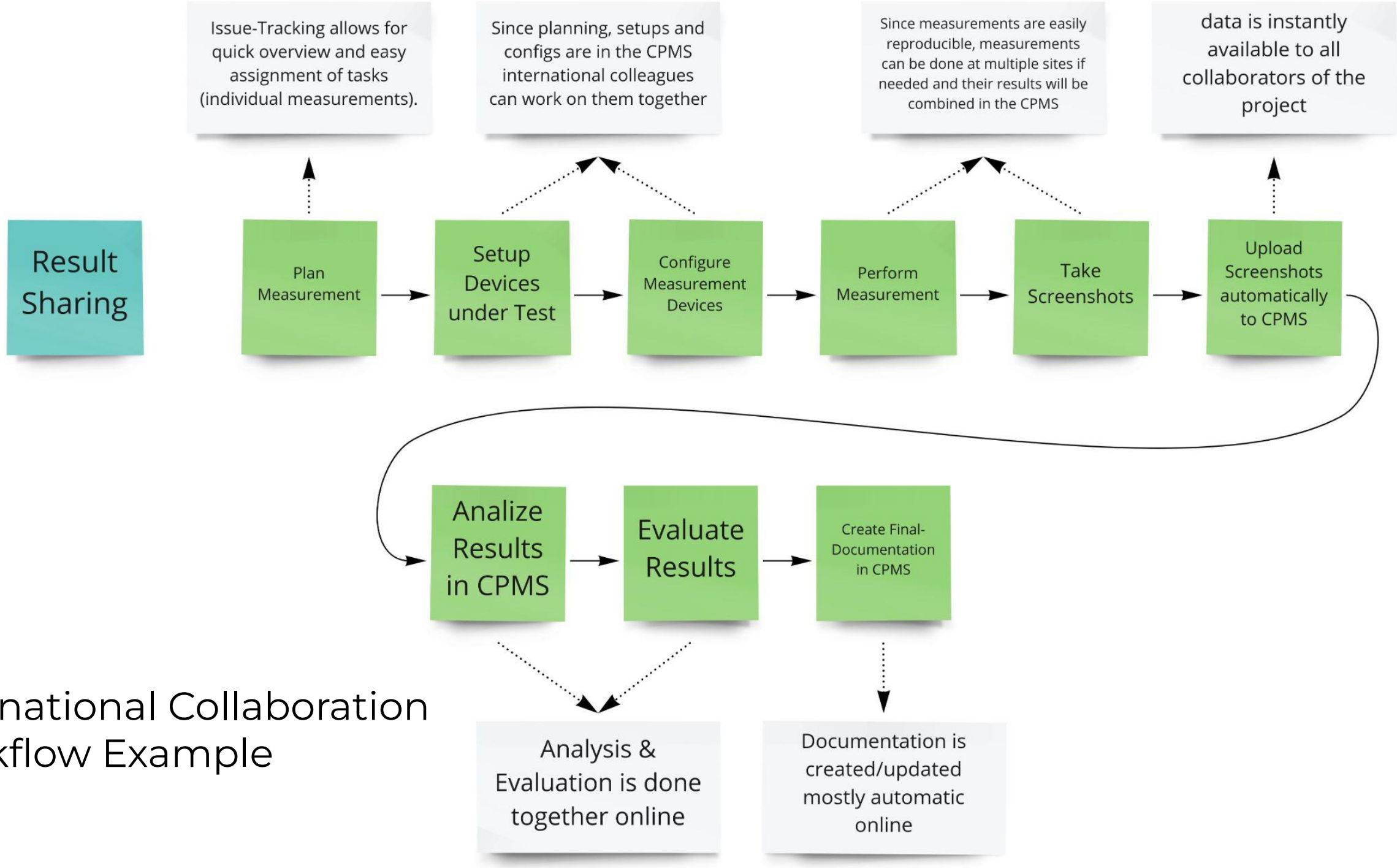


ASPECTS OF FUTURE WORK

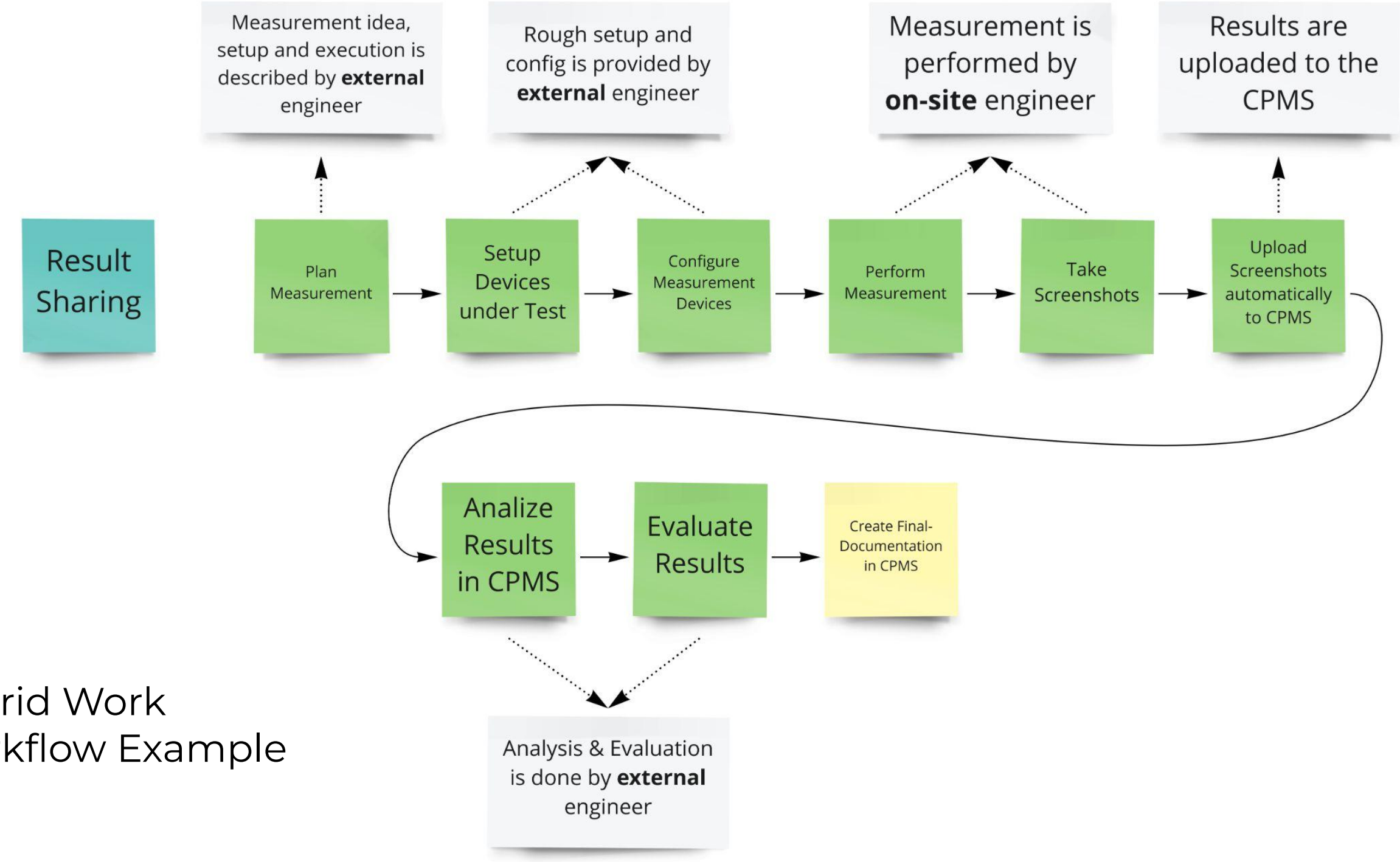
CPMS for Future Work

- International Collaboration
  - Keeping track of Issues/ToDos
- Hybrid Work
  - External engineer describes test idea, setup and execution and provides rough limitations for the setup and config via CPMS so that an on-site engineer can perform the test. The measurement results are again made available in the CPMS.
- Data-Driven
  - Automated partial analysis of data
  - Build scaffolding for future (AI-based) automation

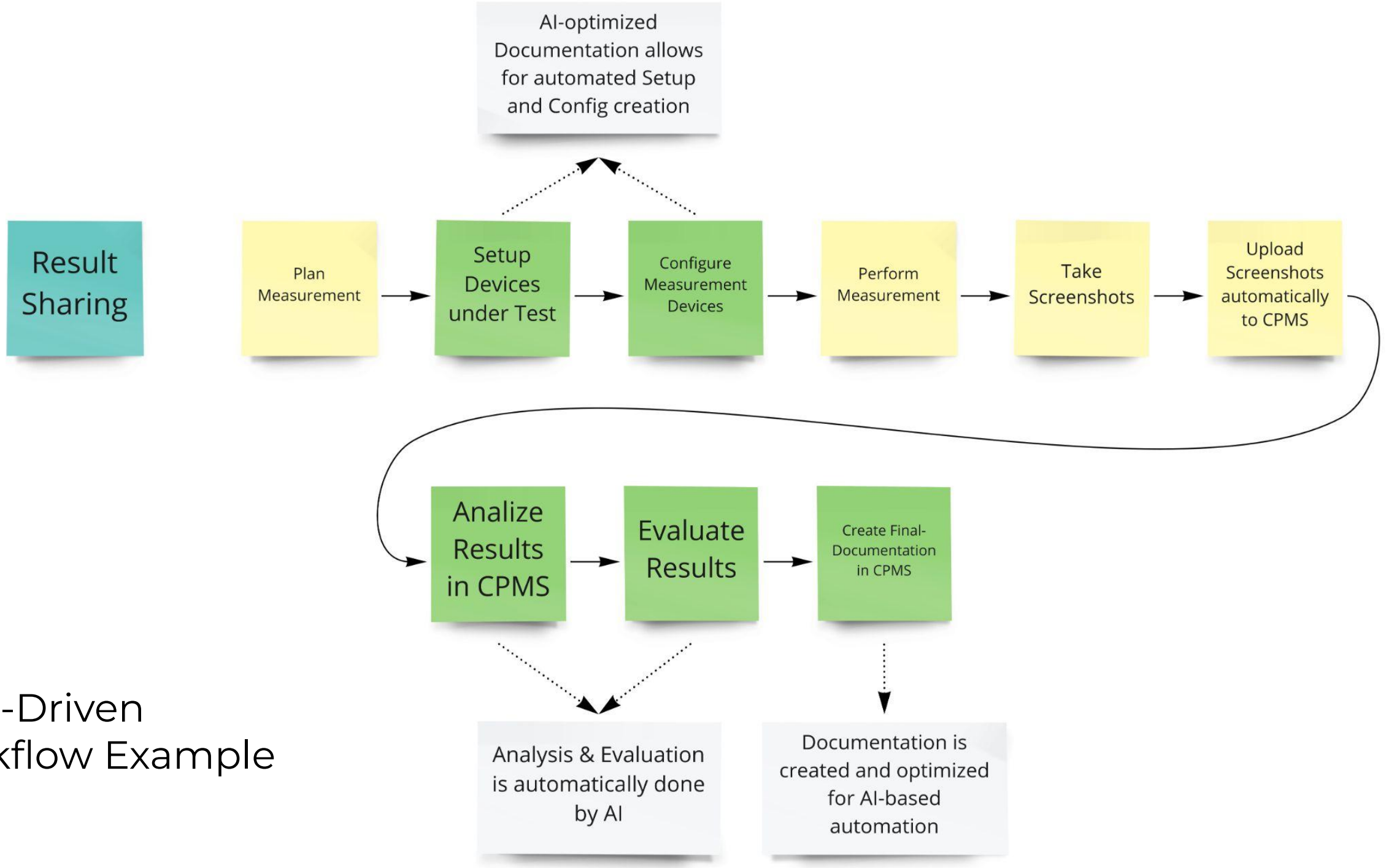
International Collaboration Workflow Example



Hybrid Work Workflow Example



Data-Driven Workflow Example



We enable engineers to collaborate in international teams and hybrid work environments, while laying the foundation for data-driven AI automation. All this is supported by comprehensive automated documentation.