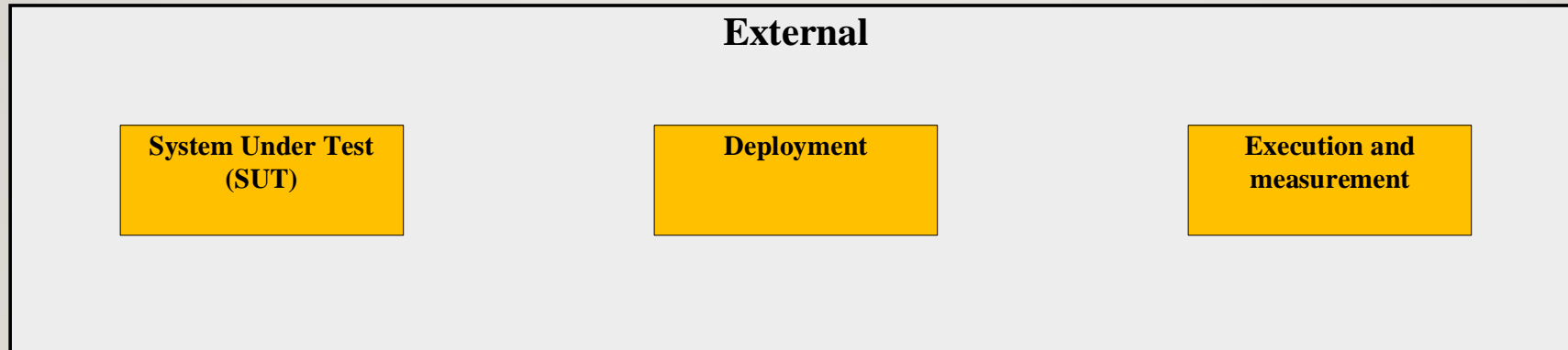


PPTAM

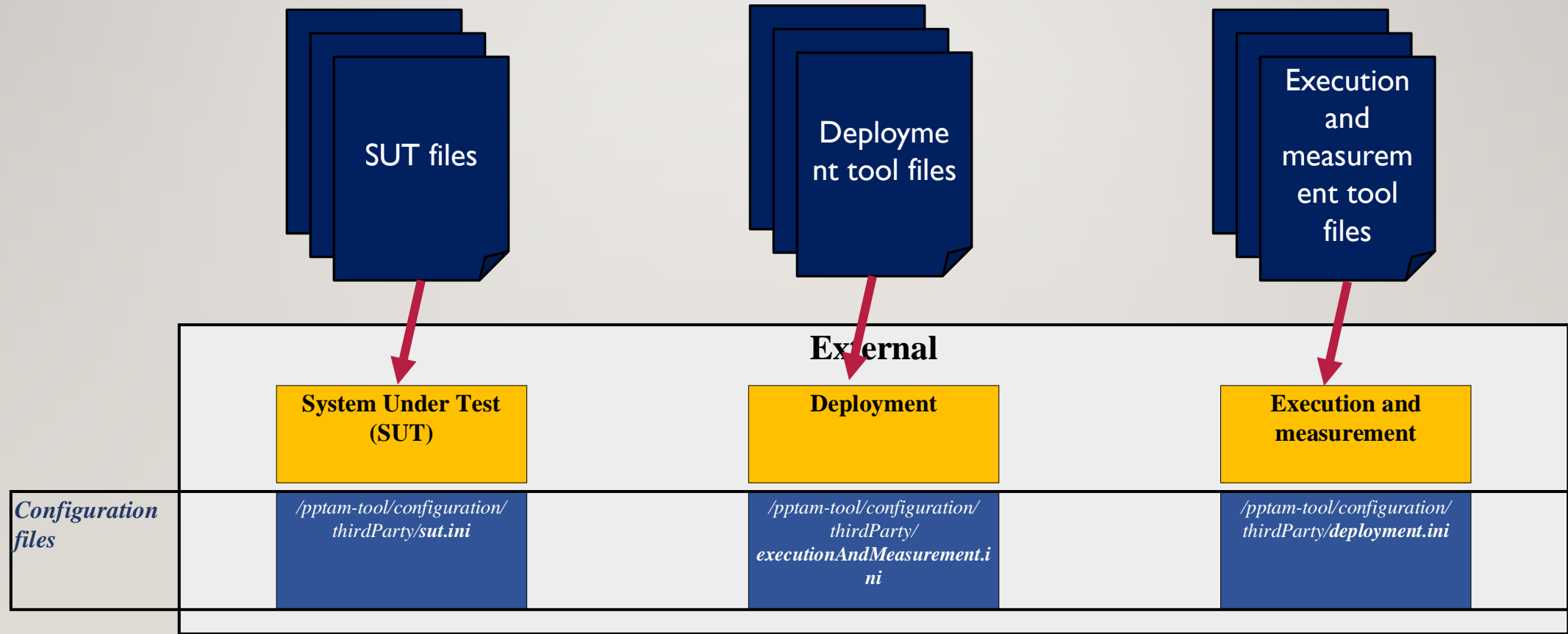


PPTAM EXTERNAL

- Main external components:
 - System under test (e.g., Train Ticket)
 - A tool for deployment (e.g., Docker)
 - A tool for execution and measurement of the tests (e.g., Faban)



PPTAM EXTERNAL CONFIGURATION



PPTAM EXTERNAL CONFIGURATION

- Add configuration place holders in tool's files (e.g., `${CARTS_CPUS_LIMITS}`)
- Add values to these place holders and the path to these files to `FILE_TO_CHANGE` of the corresponding ini **configuration files**.
- For example: In `suit.ini`, add to `FILE_TO_CHANGE` and set value to `CARTS_CPUS_LIMITS`.
`templates/deployment_descriptor/template/docker-compose.yml`

```
resources:
  limits:
    cpus: '${CARTS_CPUS_LIMITS}'
    memory: ${CARTS_RAM_LIMITS}
```

```
[SOCKS2]
FILE_TO_CHANGE = templates/deployment_descriptor/template/docker-compose.yml
CARTS_CPUS_LIMITS=0.25
```

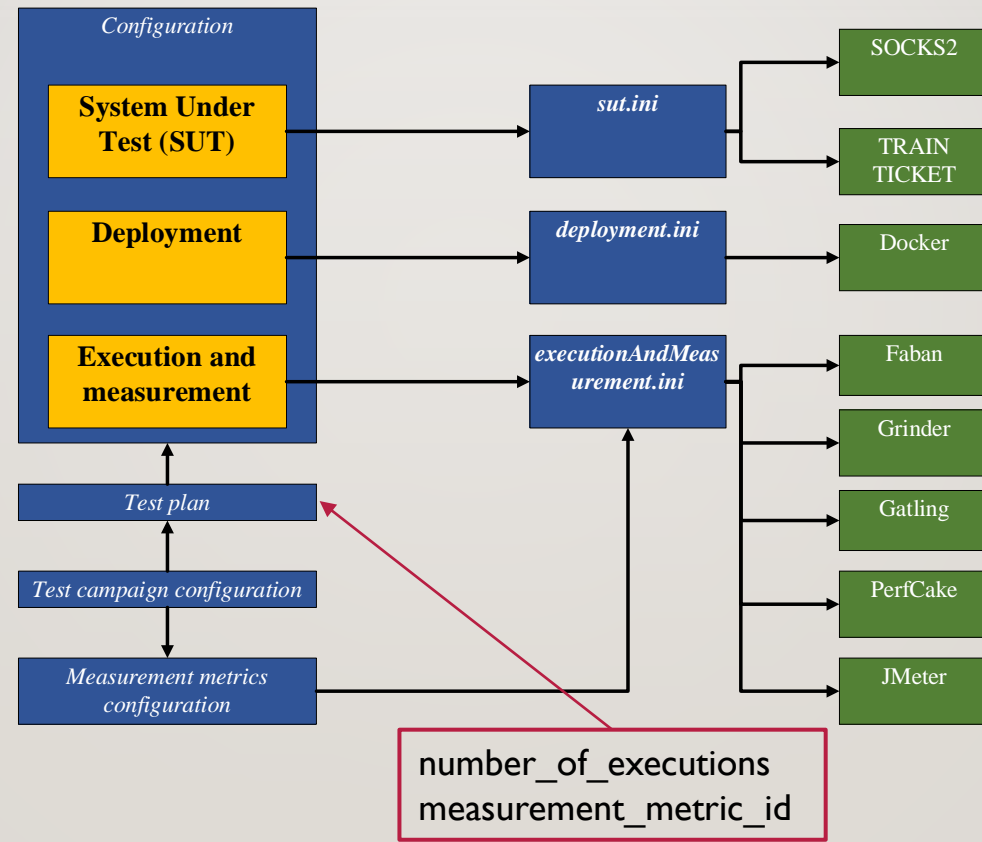
External			
	System Under Test (SUT)	Deployment	Execution and measurement
Configuration files	/pptam-tool/configuration/thirdParty/sut.ini	/pptam-tool/configuration/thirdParty/executionAndMeasurement.ini	/pptam-tool/configuration/thirdParty/deployment.ini

CONFIGURATION OF PPTAM

```
configuration.ini
1 [Configuration]
2 DEPLOYMENT = DOCKER
3 EXECUTION_AND_MEASUREMENT = FABAN
4 SUT = SOCKS2
```

NUMBER_OF_TESTS = 5
configuration_file_path = "..."

```
{
  "change_me-20200527162430-29e27ba6": {
    "TEST_ID": "change_me-20200527162430-4958bebe",
    "carts_cpus_limits": "0.25",
    "carts_cpus_reservations": "0.25",
    "carts_ram_limits": "500M",
    "carts_ram_reservations": "500M",
    "carts_replicas": "1",
    "faban_ip": "10.7.20.68",
    "faban_java_home": "/usr/lib/jvm/java-8-openjdk-c",
    "faban_output_dir": "/tmp/",
    "file_to_change": "templates/deployment_descripto",
    "num_users": "50",
    "sut_hostname": "socks2",
    "sut_ip": "10.7.20.69",
    "sut_port": "80",
    "test_case_ramp_down_in_seconds": "0",
    "test_case_ramp_up_in_seconds": "10",
    "test_case_steady_state_in_seconds": "60",
    "test_name": ""
  },
  "change_me-20200527162430-4958bebe": {
    "TEST_ID": "change_me-20200527162430-4958bebe",
```



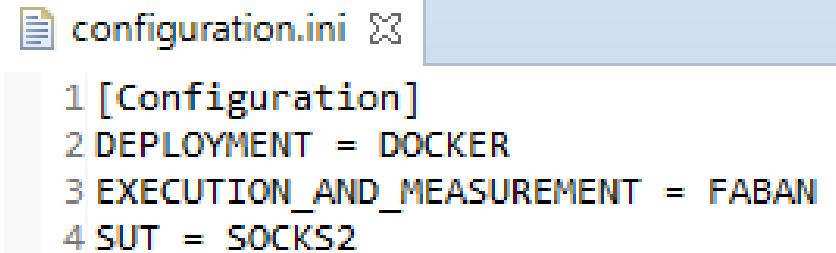
```
sut.ini
1 [SOCKS2]
2 ; FILE_TO_CHANGE: Path to the
3
4 FILE_TO_CHANGE = templates/de
5
6 ; SUT specific settings
7 ; The following settings are
8 ; - SUT_HOSTNAME: the hostname
9
10 CARTS_CPUS_LIMITS=0.25
11 CARTS_CPUS_RESERVATIONS=0.25
12 CARTS_RAM_LIMITS=500M
13 CARTS_RAM_RESERVATIONS=500M
14 CARTS_REPLICAS=1
15 SUT_HOSTNAME=socks2
16
17 [TRAIN_TICKET]
18
```


PPTAM EXTERNAL CONFIGURATION

```
sut.ini
1 [SOCKS2]
2 ; FILE_TO_CHANGE: Path to the files to change. Files should be separated by comma (,), relevant to the create.py.
3
4 FILE_TO_CHANGE = templates/deployment_descriptor/template/docker-compose.yml
5
6 ; SUT specific settings
7 ; The following settings are specific to the software currently tested.
8 ; - SUT_HOSTNAME: the hostname of the server on which the system under test (SUT) is deployed
9
10 CARTS_CPUS_LIMITS=0.25
11 CARTS_CPUS_RESERVATIONS=0.25
12 CARTS_RAM_LIMITS=500M
13 CARTS_RAM_RESERVATIONS=500M
14 CARTS_REPLICAS=1
15 SUT_HOSTNAME=socks2
16
17 [TRAIN_TICKET]
18
```

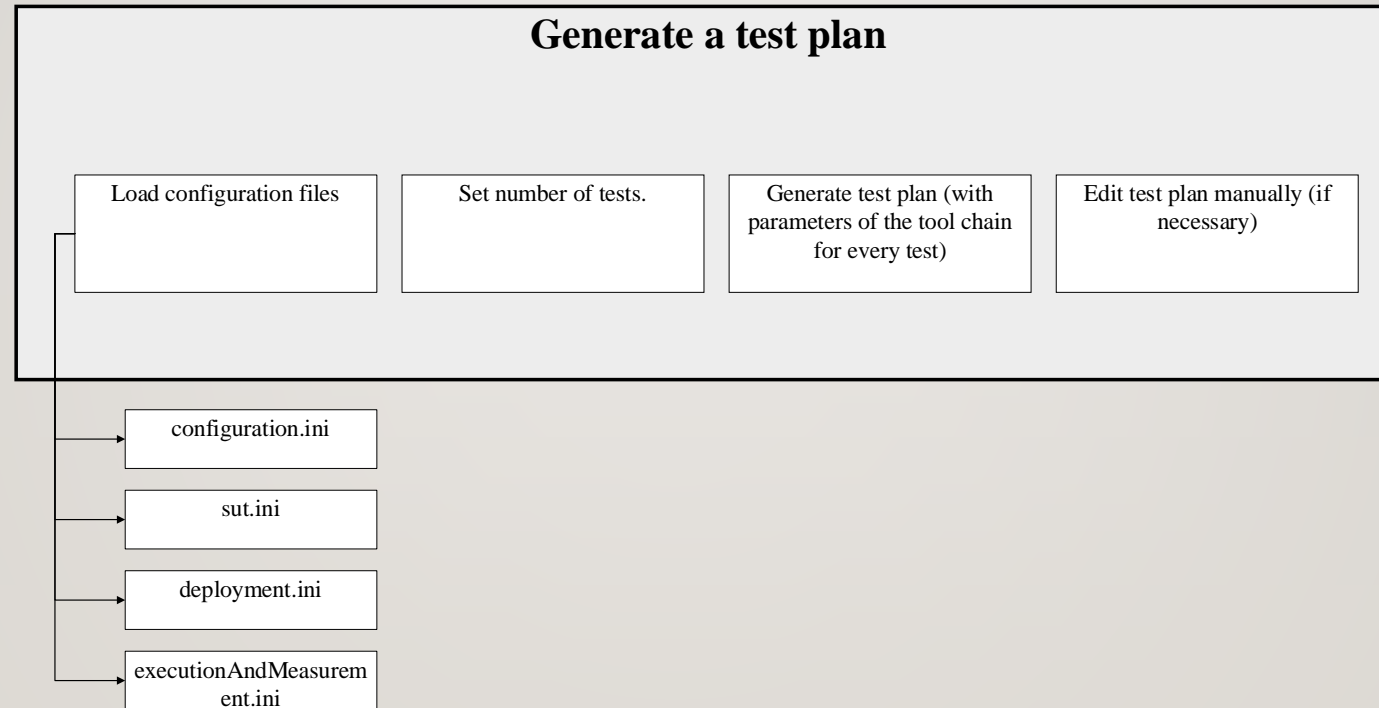
PPTAM CONFIGURATION

- /pptam-tool/configuration/configuration.ini
 - [Configuration]
 - DEPLOYMENT = DOCKER
 - EXECUTION_AND_MEASUREMENT = FABAN
 - SUT = SOCKS2
- /pptam-tool/configuration/thirdParty/sut.ini
 - [SOCKS2]
 - FILE_TO_CHANGE = templates/deployment_descriptor/template/docker-compose.yml
 - CARTS_CPUS_LIMITS=0.25
 - ...

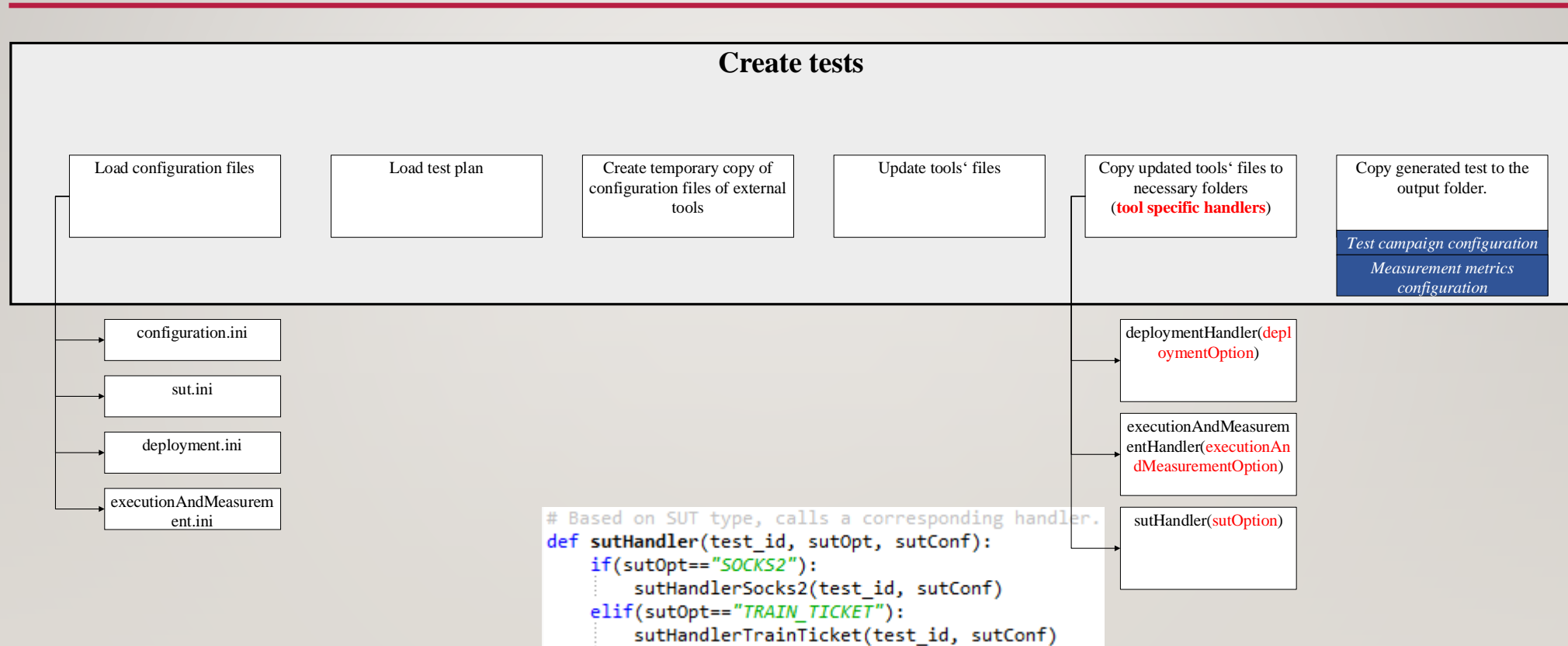


```
configuration.ini ✕  
1 [Configuration]  
2 DEPLOYMENT = DOCKER  
3 EXECUTION_AND_MEASUREMENT = FABAN  
4 SUT = SOCKS2
```

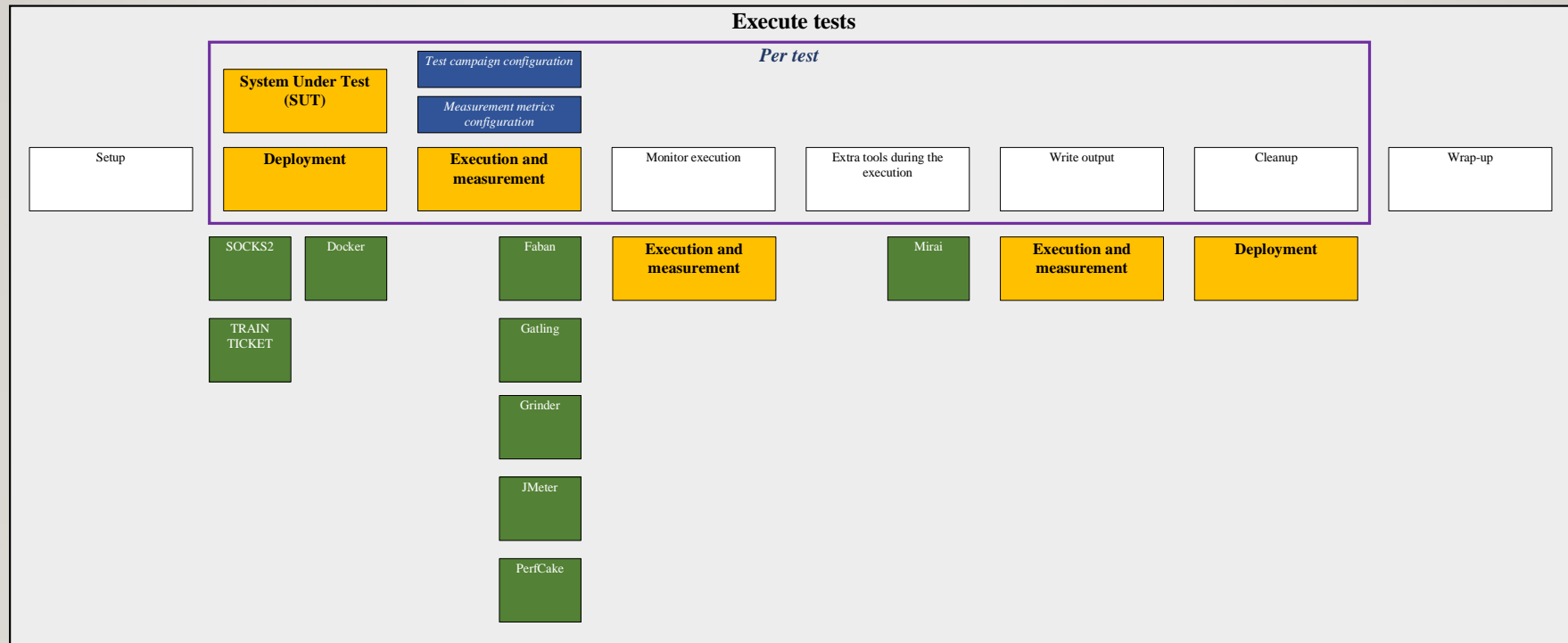
GENERATE TEST PLAN



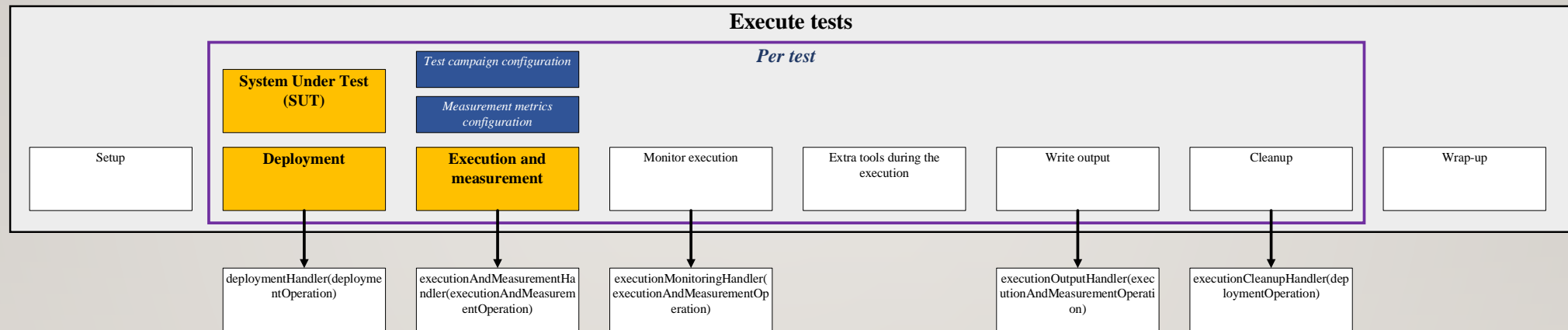
CREATE TESTS



EXECUTE TESTS

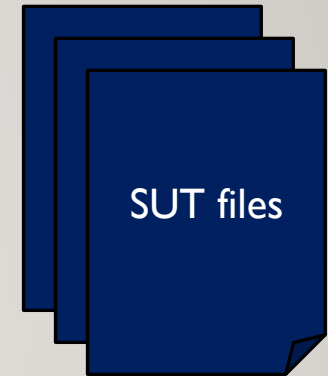


EXECUTE TESTS



EXAMPLE: ADDING A NEW SUT

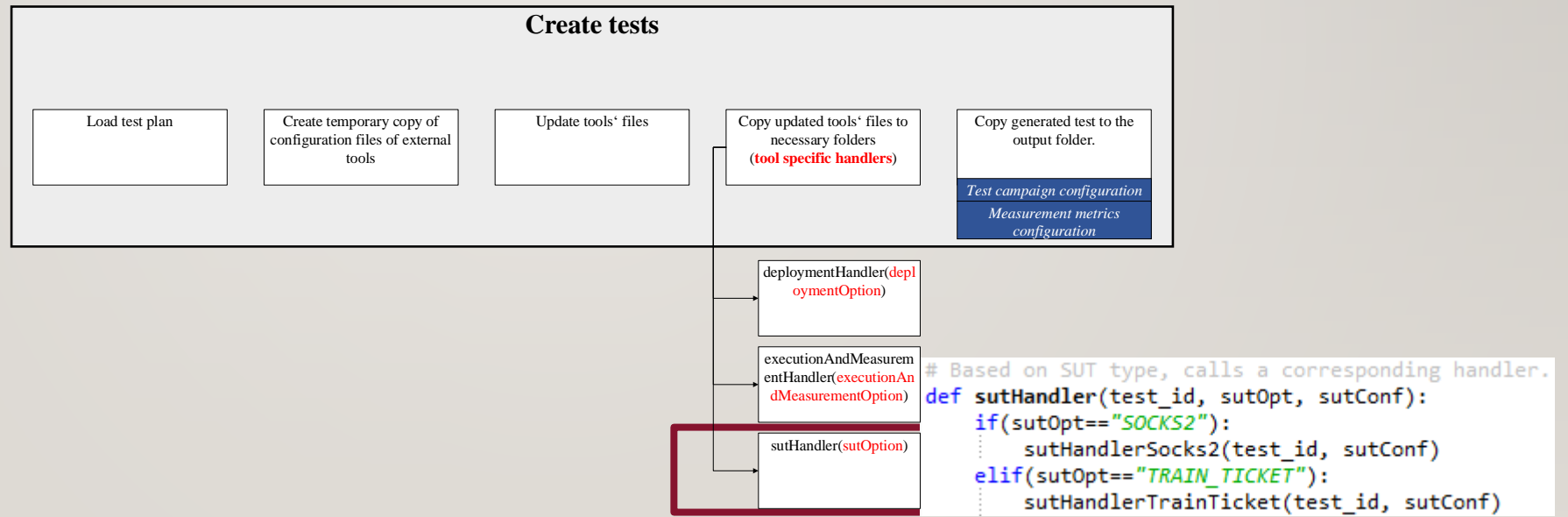
- Edit SUT configuration files: add place holders.
- Add entry to /pptam-tool/configuration/thirdParty/sut.ini
 - Path to files of SUT where placeholders are added (FILE_TO_CHANGE).
 - Placeholders and their values.
- Edit PPTAM configuration (/pptam-tool/configuration/configuration.ini)



```
configuration.ini ✕  
1 [Configuration]  
2 DEPLOYMENT = DOCKER  
3 EXECUTION AND MEASUREMENT = FABAN  
4 SUT = SOCKS2
```

EXAMPLE: ADDING A NEW SUT

- For test creation, change sutHandler(sutOption) – if necessary.
 - Usually, it is not necessary.



EXAMPLE WITH FABAN

