

Questionnaire 1. Pre-experiment

1. Profession: Click or tap here to enter text.

2. On the scale below, please indicate your level of knowledge about Internet of Things (IoT) systems in general (architectures, applications, operation, etc.).

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very low	Low	Medium	High	Very High

3. On the scale below, please indicate your level of knowledge about container-based virtualization (containers, orchestrators).

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very low	Low	Medium	High	Very High

4. Do you know or have you measured Quality of Service (QoS) and infrastructure metrics such as availability, latency, CPU and RAM consumption, bandwidth consumption, etc.?

- ☐ Yes
☐ No

5. Please check the terms you know from the list below.

- ☐ Horizontal Scaling
☐ Computation offloading
☐ Application redeployment

6. Do you know of any tools for modelling or representing IoT systems?

- ☐ Yes ¿Which? Click or tap here to enter text.
☐ No

7. 6.If your previous answer was **Yes**, which of the following aspects allows you to represent the tool?

- ☐ System infrastructure

- ☐ Adaptation plan
 - ☐ Software deployment
 - ☐ Software tests
 - ☐ Other [Click or tap here to enter text.](#)
-

8. Do you know or have you used the JetBrains Meta Programming System (MPS) software?

- ☐ Yes
- ☐ No

Questionnaire 2. System infrastructure and application deployment modeling

System infrastructure

1. Specify the level of difficulty for modelling the nodes (edge, fog, and cloud) of the IoT system.

- ☐ Very easy
- ☐ Easy
- ☐ Medium
- ☐ Hard
- ☐ Very hard

2. If you have experienced any problems modelling the nodes in the system, please indicate below.

Click or tap here to enter text.

3. Does the language allow modelling the nodes and their specifications of an IoT system?

- ☐ Yes
- ☐ No, why? Click or tap here to enter text.

4. Would you add (or modify) any concept to the language to represent the nodes and their specifications? Which one?

Click or tap here to enter text.

Container-based application deployment

5. Specify the level of difficulty for modelling the applications and container deployment on the nodes (edge, fog, and cloud) of the system.

- ☐ Very easy
- ☐ Easy
- ☐ Medium
- ☐ Hard
- ☐ Very hard

6. If you have experienced any problems modelling the applications and container deployment, please indicate below.

Click or tap here to enter text.

7. Does the language allow for modelling the deployment of container-based applications on the nodes of an IoT system's infrastructure?

- ☐ Yes
- ☐ No, why? [Click or tap here to enter text.](#)

8. Would you add (or modify) any concept to the language to represent the deployment of container-based applications? Which one?

[Click or tap here to enter text.](#)

Questionnaire 3. Adaptation rules modeling

1. Specify the level of difficulty for modelling the adaptation rules for the IoT system.

- ☐ Very easy
- ☐ Easy
- ☐ Medium
- ☐ Hard
- ☐ Very hard

2. If you have experienced any problems modelling the adaptation rules, please indicate below.

Click or tap here to enter text.

3. Does the language allow modelling of adaptation rules to check QoS or infrastructure metrics and adapt the system architecture?

- ☐ Yes
- ☐ No, why? Click or tap here to enter text.

4. Would you add (or modify) any concept to the language to represent the adaptation rules of the system? Which one?

Click or tap here to enter text.

General

5. Would you use or recommend this language to model the infrastructure of IoT systems (edge, fog, and cloud nodes) and their adaptation plan to guarantee their operation?

- ☐ Yes
- ☐ No

Why?

Click or tap here to enter text.