Trust Lens Toolkit

Facilitator Guidelines

About the Trust Lens Toolkit

Many organisations are interested in the way that IoT technology can be used in public spaces to solve problems or provide opportunities for new benefits to society. For example, smart street lights which only turn on when they are needed, or a network of sensors that provide data on air quality.

There are many questions that need to be considered in such deployments to make sure that the technology is being used to everyone's benefit. Potential problems such as privacy risks must be understood and mitigated, and information should be available to those who might wish to understand the system, such as members of the public.

We have developed a toolkit to help facilitate a conversation between those creating or assessing deployments, to help them in this process. It can be used by a variety of types of organisation, and different representatives within these organisations, consider where you might need to seek additional information.

Facilitating a Workshop

This toolkit is designed to help facilitate a workshop looking in detail at a planned or current IoT deployment. One or more people will need to take on the role of facilitator, preparing the workshop, inviting the right people and leading the group through the process.

These guidelines offer facilitators suggestions and advice on how to use the toolkit, and how to run the workshop itself, split across 4 sections:
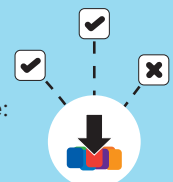
- Preparing the workshop
- Running the workshop
- Example Responses to Questions
- Creating a Summary Report

If you plan on using these tools, please review these guidelines in advance and ensure you have everything needed to run a successful workshop using these tools.

The Toolkit Website

You can customise and download materials from this toolkit via our website:

lancaster.ac.uk/trustlens

Share your feedback

Once you've used these tools, please let us know about your experience: lancaster.ac.uk/trustlens/feedback

PETRAS   imagination LANCASTER   Lancaster University   UNIVERSITY OF ABERDEEN

Preparing the Workshop

Some things to think about when preparing to facilitate a workshop using this toolkit.

This isn't set in stone, just a starting point for your plan.

People to invite

The questions in this toolkit are designed to examine an IoT deployment from all sides. You will need a good mix of people involved in the workshop. Ideally this would include:

- Managers
- Technical Experts
- Operational
- End users

We think 6-8 people is about right.

Time and space

As a facilitator, you will need to provide the time and the space for proper discussions about the questions in this toolkit.

Whether online or in-person, expect to spend at half a day on a workshop of this kind.

Tea and coffee is likey to be needed.

Work on Paper or Digitally

During a workshop the materials in this toolkit can be used on paper, or they can be used on a laptop/tablet.
Pick an approach best for you the facilitator and the people at the workshop.

Miro & More

- The questions in this toolkit can work with many online collaborative apps, like Google Docs, Office 365 and Miro.
- You'll find a link to our Miro template on the toolkit website.
- Create a one or more shared documents and get people connected to them for the workshop.

Powerpoint / Open Office

- Download in Powerpoint format.
- You will have one presentation file per Big Question in the toolkit.
- Some people at the workshop will need to edit these files to record discussions. Make sure the files are successfully shared before the workshop starts.
- At the end of the workshop, collect the edited files.

Paper

- Download in Powerpoint format.
- You will have one file per Big Question in the toolkit, each containing 10-25 questions.
- Print each pack and staple/bind them together. A4 or A3 paper works well.
- Provide pens and sticky notes for people to use.

Whichever method you choose, make sure you test it in advance and let people at the workshop know what to do.

Review and Filter the questions

This tooklit contains 226 questions in total, and not all will be relevant to every IoT project. Pick the ones needed in your workshop.

Filter by Project Stage
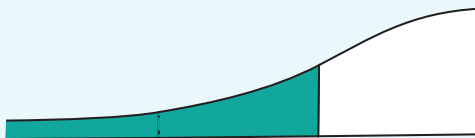
- The tooklit website allows you to filter based on how developed your project is, from scoping to full operation.
- Choose the relevant phases when you download these tools.
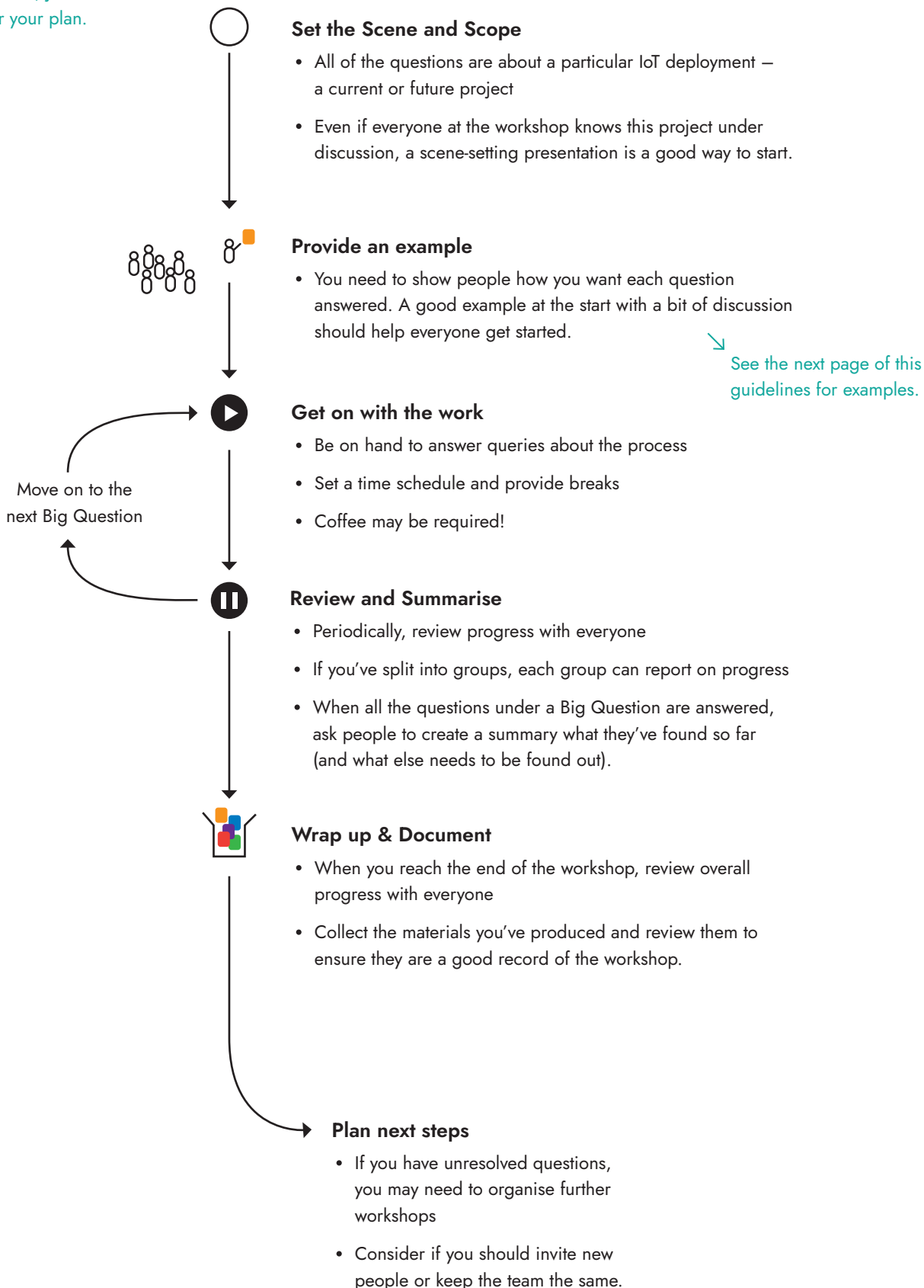
Filter by Big Question
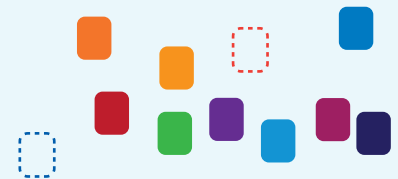
- The questions are organised under 15 Big Questions, each with a distinct topic.
- Review these, before or during the workshop, and set aside the irrelevant ones.

Running the Workshop

A suggested process
for what to do during a
workshop using this toolkit.

This isn't set in stone, just a
starting point for your plan.

Set the Scene and Scope

- All of the questions are about a particular IoT deployment —
  a current or future project

- Even if everyone at the workshop knows this project under
  discussion, a scene-setting presentation is a good way to start.

Provide an example

- You need to show people how you want each question
  answered. A good example at the start with a bit of discussion
  should help everyone get started.

See the next page of this
guidelines for examples.

Get on with the work

- Be on hand to answer queries about the process

- Set a time schedule and provide breaks

- Coffee may be required!

Move on to the
next Big Question

Review and Summarise

- Periodically, review progress with everyone

- If you've split into groups, each group can report on progress

- When all the questions under a Big Question are answered,
  ask people to create a summary what they've found so far
  (and what else needs to be found out).

Wrap up & Document

- When you reach the end of the workshop, review overall
  progress with everyone

- Collect the materials you've produced and review them to
  ensure they are a good record of the workshop.

Plan next steps

- If you have unresolved questions,
  you may need to organise further
  workshops

- Consider if you should invite new
  people or keep the team the same.

Example Responses to Questions

The examples you show to people at the workshop will make a huge difference to the work they do.

Here are some examples you might show.

EXAMPLE

Where will the
devices be located?

Scoping + Development + Operation

- Each business participating in the pilot will have a one or two devices located on site
- The devices should be near to the main entrance

- The devices need to be tested to ensure they detect people entering and leaving

Capturing answers and ideas

- Some questions will have a single, simple answer.
- Many will have several answers.
- Hopefully some questions will lead to new insights and ideas.
- Encourage people to note down everything they can from their discussion about each question.

EXAMPLE

Resolved

Where will the
devices be located?

Scoping + Development + Operation

- Each business participating in the pilot will have a one or two devices located on site
- The devices should be near to the main entrance

- The devices need to be tested to ensure they detect people entering and leaving

EXAMPLE

Unresolved

Where will the
devices be located?

Scoping + Development + Operation

- Notes and answers...

Marking Questions

- You can track resolved and unresolved questions as you go.
- Knowing which questions you can't answer can be just as helpful as those you can.

- In Powerpoint, OpenOffice or Miro, they can slide the question card to the left or right to mark questions.
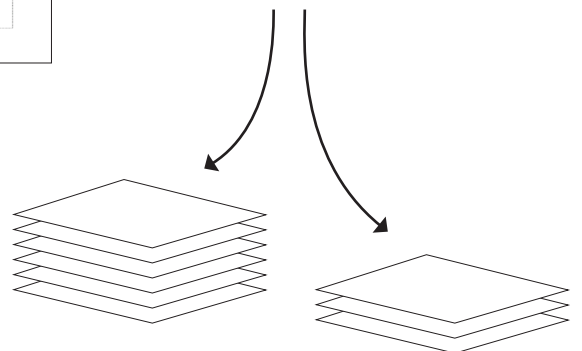- If working on paper, you can create piles to gather the resolved and unresolved questions.

Special Questions

Some questions in this toolkit
are different from others, so
be aware these will appear
in a few places.

Does the
deployment
involve recruiting
participants?

No
Move on to the next
Big Question.

Yes / Unsure
The questions
that follow will be
relevant.
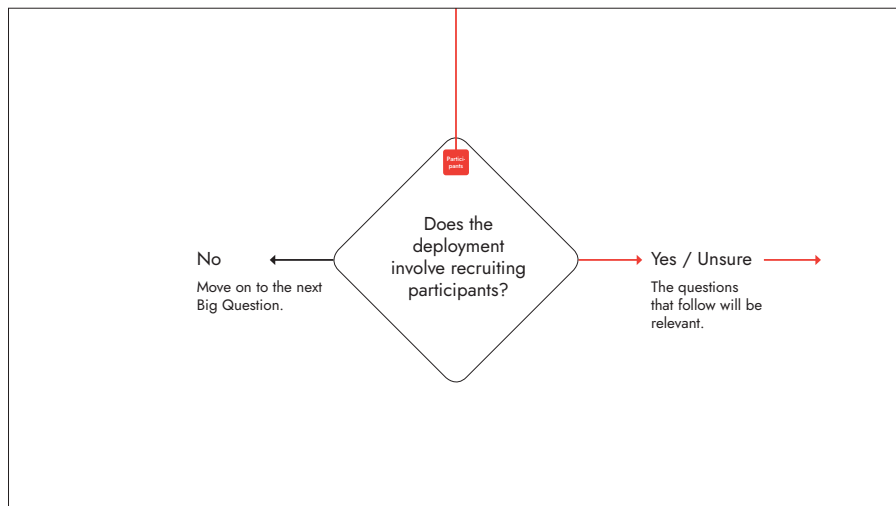
Filter Questions

- The first question within 3 of the
  Big Question packs is a filter
  question.

- These allow people at the workshop
  to rule out all the questions within a
  Big Question if they aren't relevant.

- As facilitator, you may want to
  exclude Big Questions in advance
  of the workshop if they don't
  apply to the deployment you are
  focussing on.

Sensor Property:
Duplicate this slide/card for
each sensor property.

What is the measurement range?
i.e. the set of values that the sensor can observe/
measure

What is the accuracy?
i.e. how closely does the observed value match the true
value of the observed property

What is the detection limit?

What is the drift in reported
values of observations/
measurements over time?

What is the smallest possible
time between one observation/
measurement and the next?

What is the latency?
i.e. the time between requesting an observation be
made and a value being returned

How precise is the sensor?
i.e. how consistently will the sensor return the same value under
the same conditions

What is the granularity? i.e. the
smallest difference in the values that
the sensor can observe/measure?

What is the response time?
i.e. the time between a change in the value of a property that is
being observed and the sensor settling on the (new) value?

What is the selectivity of the sensor?
i.e. if the sensor provides values for one or more properties,
are the returned values independent of the other properties
being investigated?

What is the sensitivity of the sensor?
i.e. the quotient of the change in a value of observations and
the corresponding change in the value of the property being
observed?

Repeating Cards

- The last question within the 'What
  will the sensors do?' Big Question
  pack is special.

- It needs to be duplicated and
  completed for each sensor
  property.

- People at the workshop may need a
  little bit of extra help with this.

Add your own questions

The tooklit website provides templates to allow you to create your own
questions and add them to the workshop.

- Download the templates in Powerpoint format.

- Edit in the templates and create
  PPTX, PDF or JPEG files.

- Add these to your workshop materials.

- Consider adding them to a fork of this project on Github.

Creating a Summary Report

This toolkit contains
templates to help you
combine and summarise the
outcomes of the workshop.

The Report Template

- Templates are available in
  Word format

- The templates comes pre-loaded with
  all the questions you've download from
  the website.

- Add project titles and dates to the
  header of the document so it appears
  on all pages.

Exporting from Powerpoint

If you use Powerpoint, there is a shortcut
for extracting all of the text added to the main
'Notes and answers' text box on each slide.

- Choose 'Outline View' from the View menu
- Select all of the text in the Outline
- Copy-paste to another application.

Exporting from Miro

If you use this toolkit with Miro (see website
for a template) then you can export all material
from the board easily.

- Select 'Save as PDF' for a single document
  with all questions and responses.

- Select 'Export to spreadsheet' to download
  just the text in a CSV file.