

What's your style?

What type of fieldwork can your projects be described as? Not all projects are the same. Use these boxes to categorize your projects. Knowing the type of fieldwork you will be doing can help you plan what hardware, software, data, and other equipment you will need.

Capture

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Validation

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Inspection

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Awareness

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Planning data capture

Use the following prompts to identify what materials you need to prepare.

Basemap

Aerial imagery | Street map | Topographic map

.....

.....

Structured data capture

ID | Name | Address | Observation date | Size | Condition

.....

.....

Complementary data

Roads | Property boundaries | Building footprints | Trees | Fences

.....

.....

Plan B

Generic data layers | Paper notebook | Printed maps

.....

.....

Park bench condition assessment

Use the following chart to design a database suitable for capturing condition assessments for park benches. Some field names have been added to get you started.

Design a park bench database

Field type (string, integer, list)	Field name	Choice list values (if applicable)
Easting, northing	Location	n/a
	AssetID	
	PaintCondition	
	StructuralCondition	
	InspectionDate	
	FieldworkerName	

Understanding inspection requirements

Inspection projects provide the most opportunity for advance planning, optimizing data capture methods for speed and accuracy, and informing next activities. Use the following prompts to identify the information you need to collect, what won't change, how often you need to collect, and for what kind of subsequent activity.

What information needs to be collected at each inspection?

Condition | Obstructions | Hazards | Data | Time |
Inspector ID | Next actions

.....

.....

.....

.....

.....

.....

.....

.....

How often are inspections required?

Daily | Weekly | Monthly | Annually | Ad hoc

.....

.....

.....

.....

.....

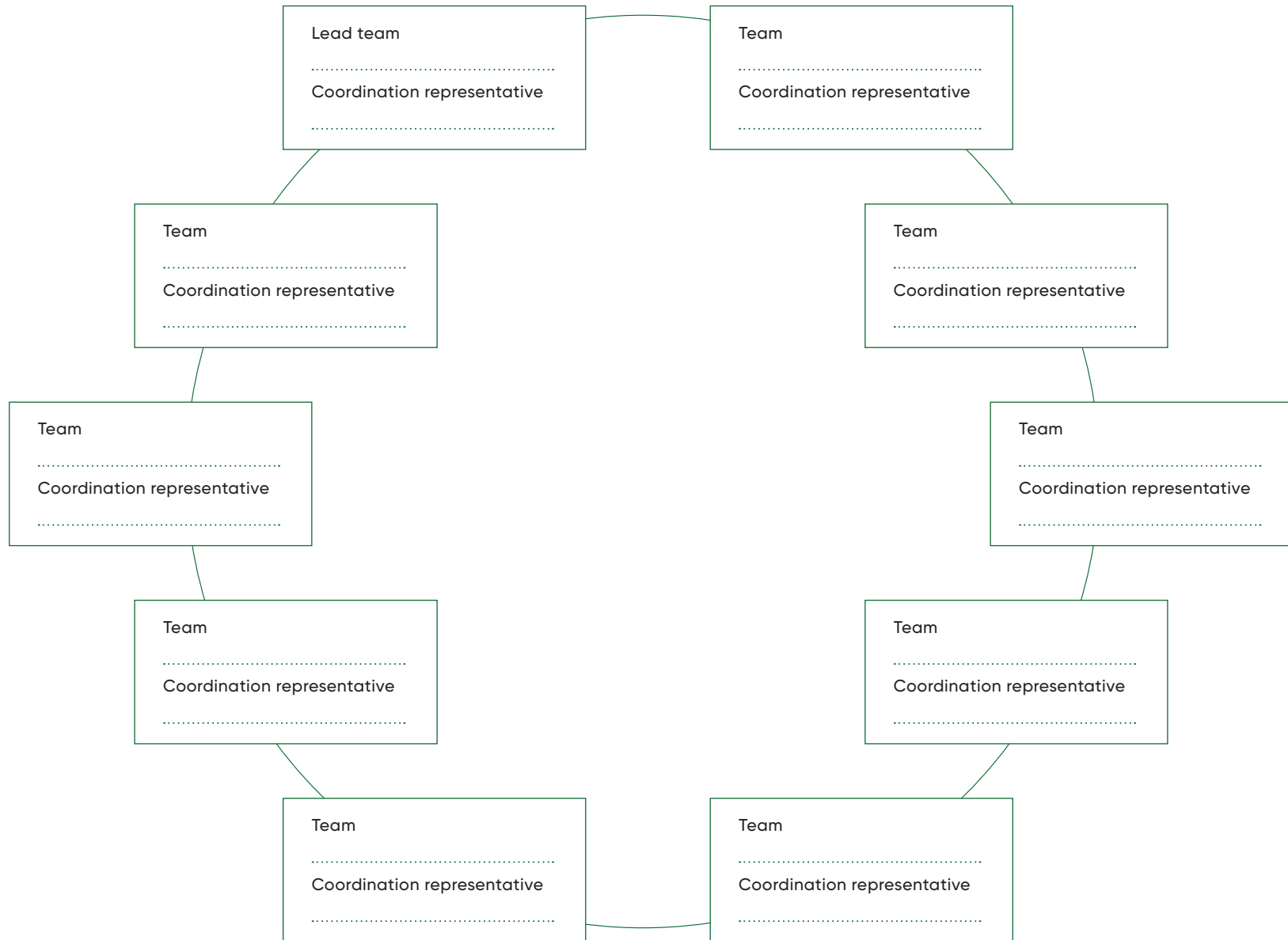
.....

.....

.....

continued on next page

Cross-agency coordination



Plan a trial

Answer the following questions to help plan your trial project. Knowing the answers to these questions can help you better group activities according to the resources—human and technological—that you have.

How many sites, features, or activities can be done in a day, week, or month?

.....
.....
.....

How long does an activity take?

Days | Weeks | Months | Years

.....
.....
.....

Do all activities consist of the same steps?

.....
.....
.....

How do the activities need to be completed?

In sequence | In parallel

.....
.....
.....

Who performs the activities at a specific location?

Same person | Different specialists

.....
.....
.....

If fieldwork is to be broken into geographic areas, how do you define them?

Conventional street addresses | Custom-designed polygons

.....
.....
.....

Playing solitaire is work

Besides solitaire, list games that make use of double-tap, tap and hold, and tap and drag actions with a stylus or finger:

.....

.....

.....

.....

.....

.....

.....

.....

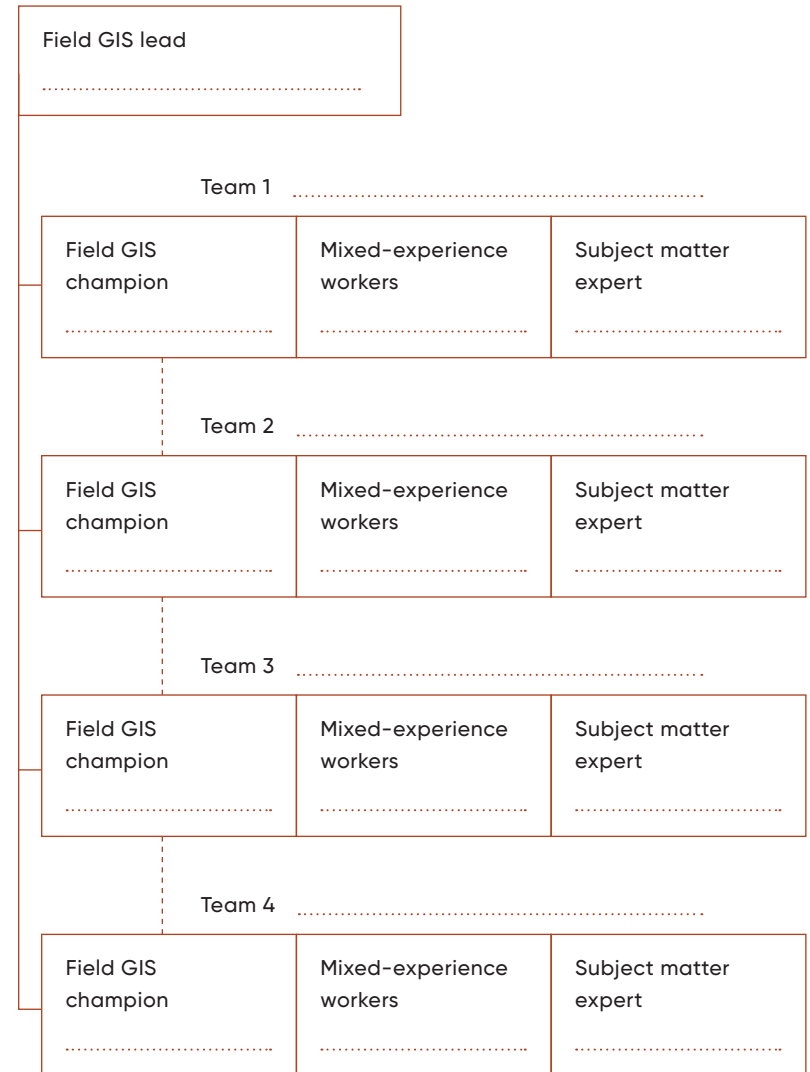
.....

.....

Cascaded training of fieldworkers

Think about the people on your team or teams, and in the diagram, identify who can be your field GIS champions, your subject matter experts, and those who are somewhere in between. Also list the field GIS lead.

Training fieldwork teams



Assign project tasks

Knowing how much time and resources to allocate to a project is learned from experience. Keep a record of how your estimations turned out so that you can better estimate next time.

Project 1

Project description

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Office-based testing

One record takes ___ min to complete

Complete ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Pilot testing

One record takes ___ min to complete

Complete ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Actual project times

One record takes ___ min to complete

Completed ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Project 2

Project description

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Office-based testing

One record takes ___ min to complete

Complete ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Pilot testing

One record takes ___ min to complete

Complete ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Actual project times

One record takes ___ min to complete

Completed ___ records in a day

.....

.....

.....

.....

.....

.....

.....

.....

.....

Choose a device

Circle the best option in each box to help describe the characteristics of the device that best suits your project.

Device requirements

Battery / power

Most common smartphones
 Device with hot swappable battery or external battery attachment

Data / memory

Most common smartphones
 Device with large internal memory or SD card
 Device that can be connected to computer with cable or has SD card

Screen display

Most common smartphones
 Device with high resolution and good color differentiation
 Device with large screen
 Device with good brightness adjustment

Location measurement

Most common smartphones
 Device with built-in dedicated GNSS receiver or external GNSS receiver

Choose an app

Web apps versus native apps

The following table lists some of the most common pros and cons of web and native apps. Circle the features that are important to your project to help you choose which type of app is best for you.

	Web app	Native app
Pros	Allows direct editing of information contained in connected databases. Doesn't require installing an app on the device. Web browser version dependent but not operating system dependent. Not installed on the device, but can be launched by clicking a button on the home screen.	Typically designed to work offline. Data can be captured and synchronized later. Can use sensors on the device (location, compass, accelerometer, camera). Can use connected equipment, typically Bluetooth location sensors. Can use operating system security features.
Cons	Must be connected to the internet (some caching of single responses possible).	Requires app installation files to exist and be deployed for each operating system.

continued on next page

Memory requirement estimates

Consider the following questions when estimating your own project memory requirements:

- How regularly can you check in, sync, or upload collected data?
- Do you have the network bandwidth to transmit the data you need to send?
- Do you need to consider doing backups in the field (USB sticks, memory cards, external hard drives)?

Project 1

Scenario

.....

.....

.....

.....

.....

.....

.....

.....

Assumptions

.....

.....

.....

.....

.....

.....

.....

.....

How much/many?

.....

.....

.....

.....

.....

.....

.....

.....

continued on next page

Project 2

Scenario

.....
.....
.....
.....
.....
.....
.....
.....

Assumptions

.....
.....
.....
.....
.....
.....
.....
.....

How much/many?

.....
.....
.....
.....
.....
.....
.....
.....

Location measurement terminology

Record additional terms that you come across that are important in your industry or projects.

Term	Description

Coordinate system terminology

Record additional terms that you come across that are important in your industry or projects.

Term	Description

Designing effective dashboards

The best dashboards are informative and clear. Consider the following elements when designing a dashboard that communicates real-time situational awareness.

Determine your audience

Who? | Important questions | Dashboard location

.....

.....

.....

.....

.....

.....

.....

Provide context when needed

Types of values | Target or historical |
Selection-based information filters |
Criteria for automatic reformatting

.....

.....

.....

.....

.....

Avoid information overload

Necessary information | Images or videos | Too distracting?

.....

.....

.....

.....

.....

.....

.....

.....

Make good design choices

Organization | Size | Color

.....

.....

.....

.....

.....

.....

.....

.....