

Ground Truthing and Virtual Field Trips

Part 4

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Building City Dashboards

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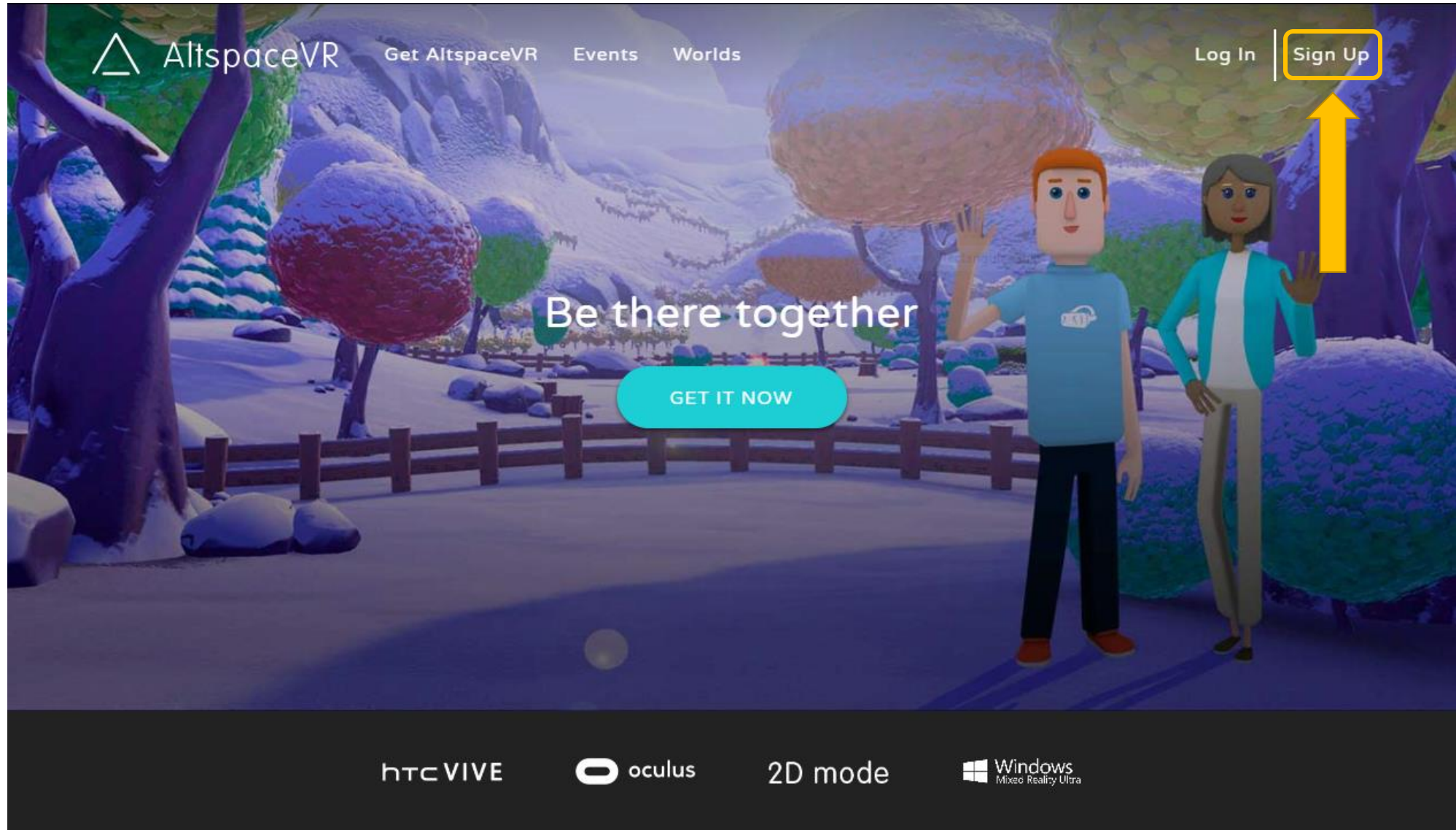


Software requirements

For this tutorial you will need the following software installed:

- Meshroom [Windows / Linux]
 - (<https://alicevision.org/#meshroom>)
- Blender 2.8 or above [Windows / Mac / Linux]
 - (<https://www.blender.org/download/releases/2-80/>)
- Unity Hub [Windows / Mac / Linux]
 - (<https://unity3d.com/get-unity/download>)
- Unity (version 2019.2.12f1) & Unity account [Windows / Mac / Linux]
 - (<https://unity3d.com/get-unity/download/archive>)
- AltspaceVR (via Windows Store or Steam) and an AltspaceVR account
 - (<https://altvr.com/>)

Signup to AltspaceVR and Download the Desktop App

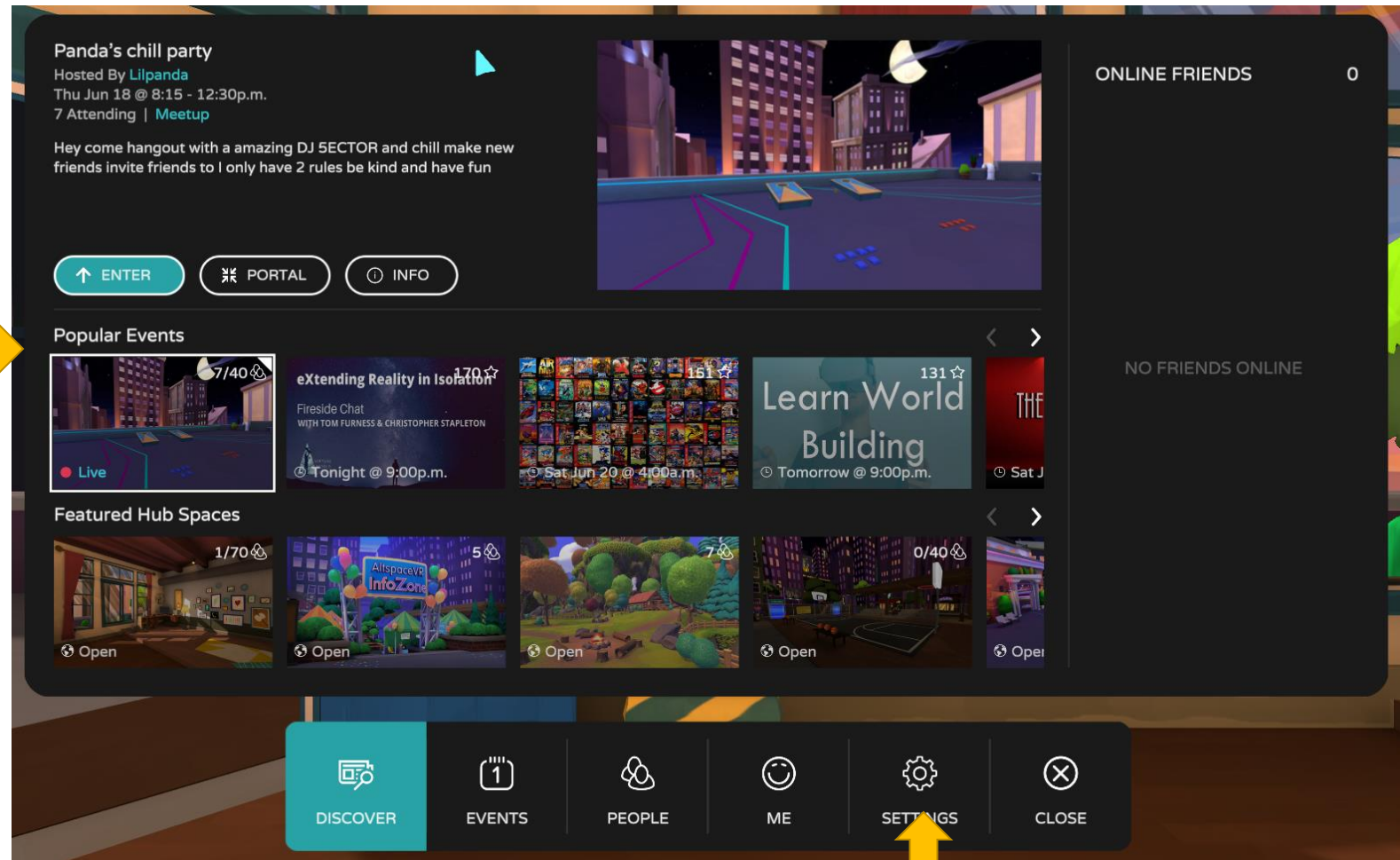


AltSpaceVR – Enabling worlds beta

1. Open AltSpaceVR on your desktop and log in



2. Once in AltSpaceVR this menu should open automatically



3. If the menu does not open, left click here to open it manually



4. Left click on "Settings"

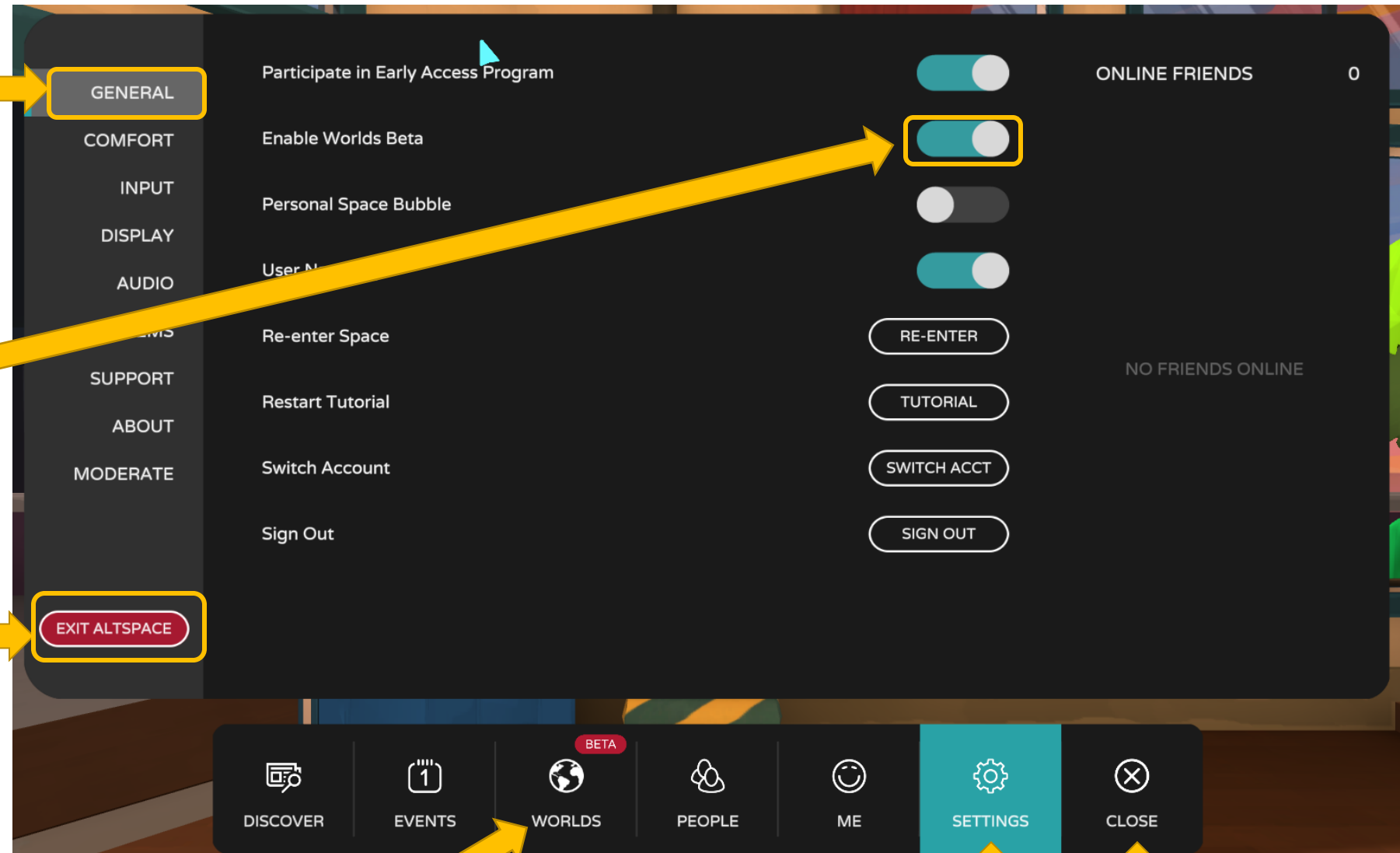


AltSpaceVR – Enabling worlds beta

1. In “General”, you should see an option to “Enable Worlds Beta”

2. Click on the switch to enable this option

3. You can then exit AltSpace to continue the tutorial or you can explore the platform further



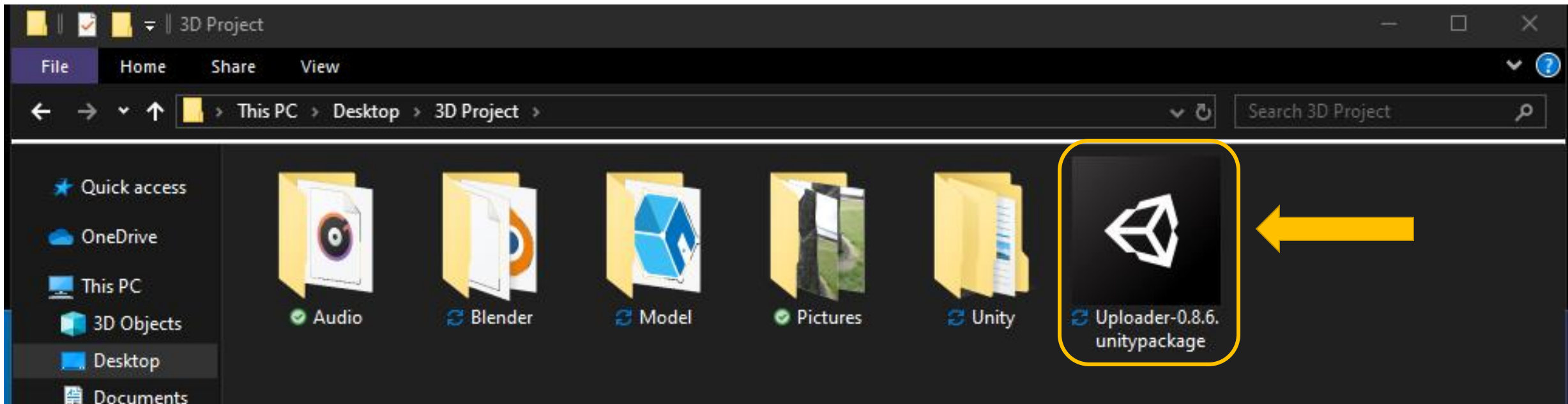
4. A new menu item should now appear here

The selected menu is always highlighted in blue

Click to return to AltSpace

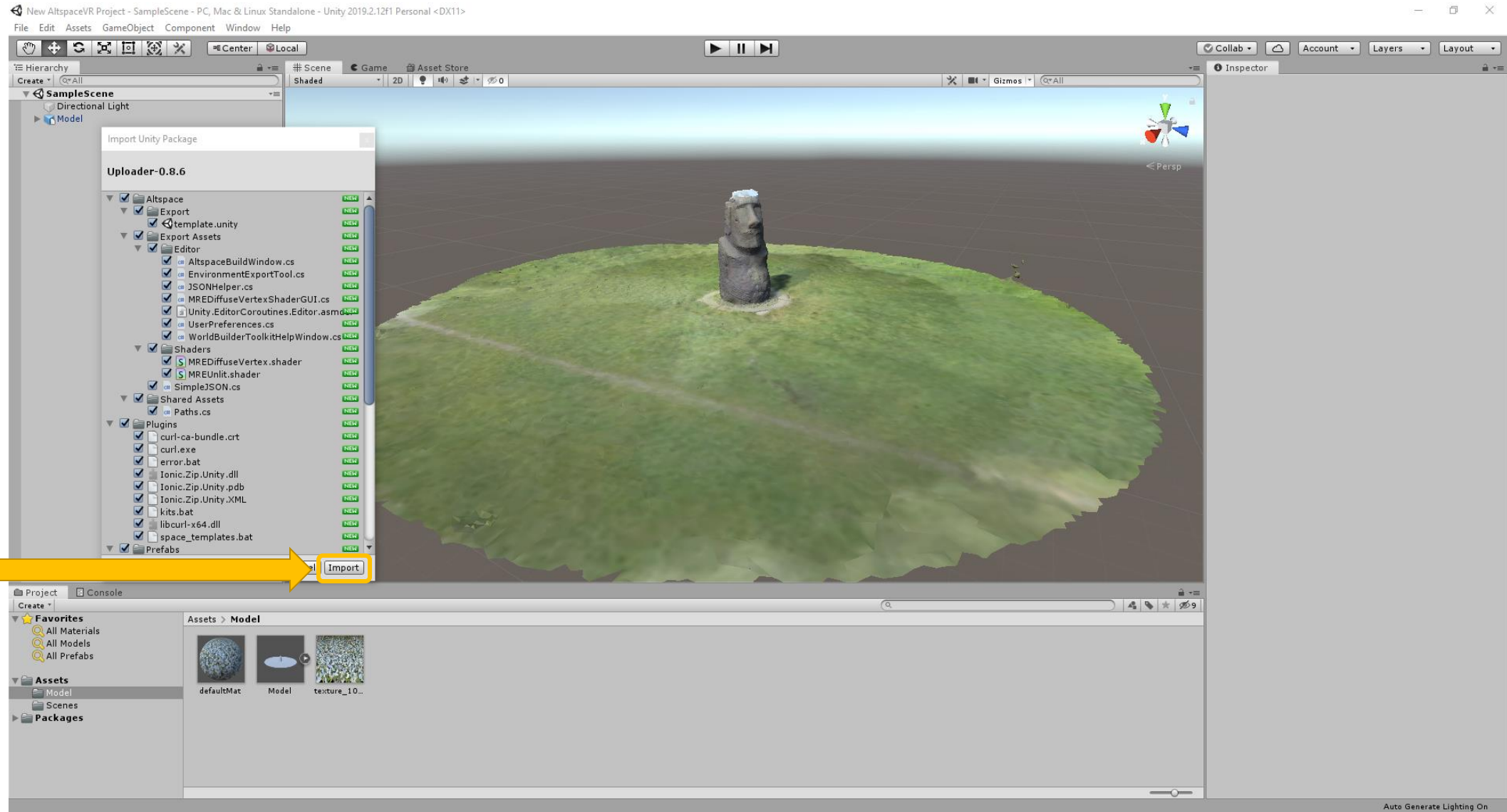
Download the AltspaceVR Unity Uploader

- Go to this address and download the latest “Unity Uploader” for AltspaceVR: <https://altvr.com/download-latest-unity-uploader/>
- The download of the Uploader Unity Package should start right away
- Once complete, if you have Unity open you can double-click on the package file and it should open within your Unity project



Install the Unity Uploader

Left-click “Import”
and the Unity
Uploader will
install to your
project

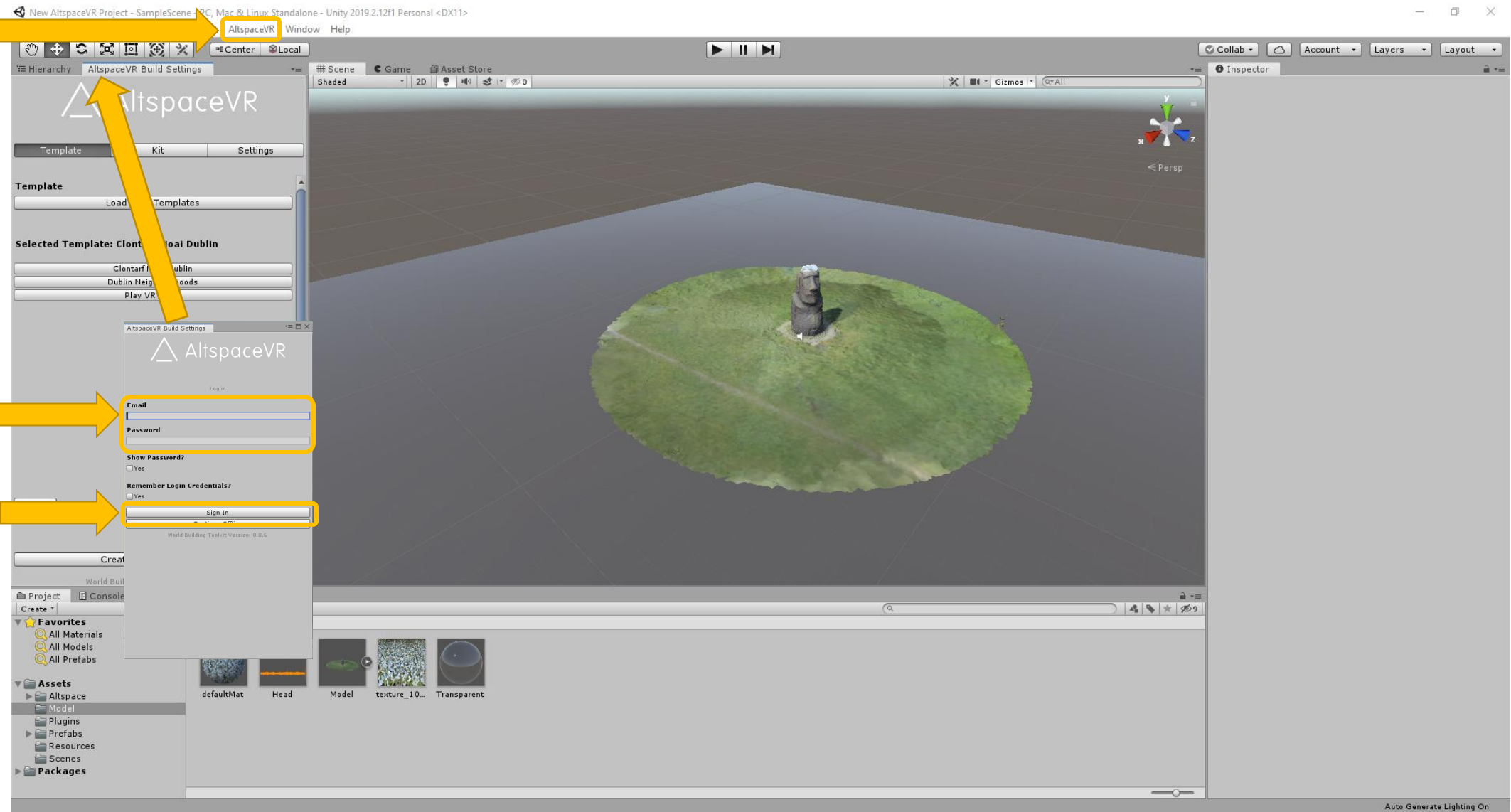


Unity Uploader – Log in to your AltspaceVR Account

1. Left-click on the new “AltspaceVR” menu item and select “Build Settings”

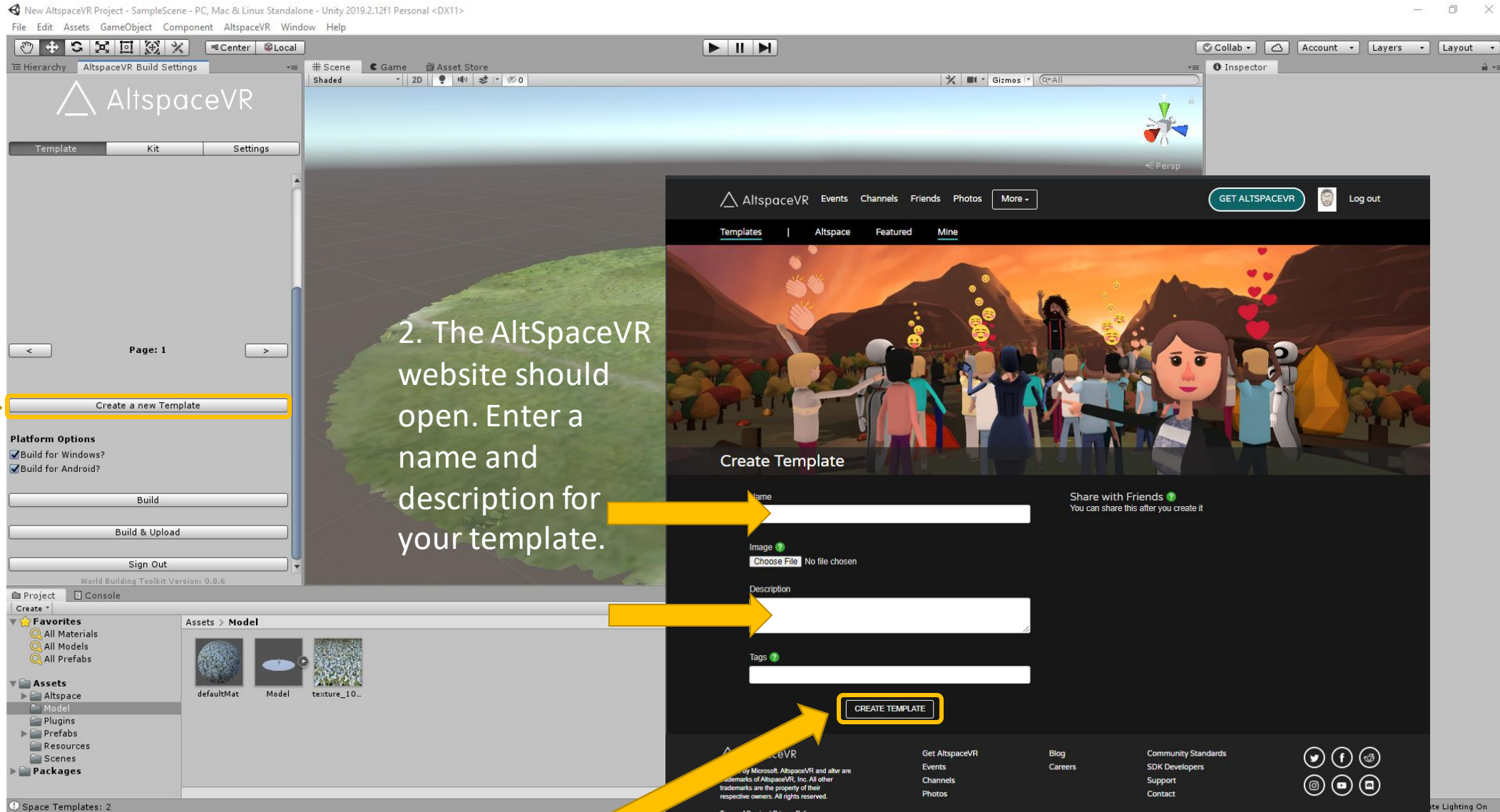
2. Enter your AltspaceVR account details and click “Sign In”

3. You can drag and dock the “AltspaceVR Build Settings” tab to sit next to the “Hierarchy” window



Unity Uploader – Create a template

1. In Unity click “Create New Template” and fill in the details on the AltSpaceVR website

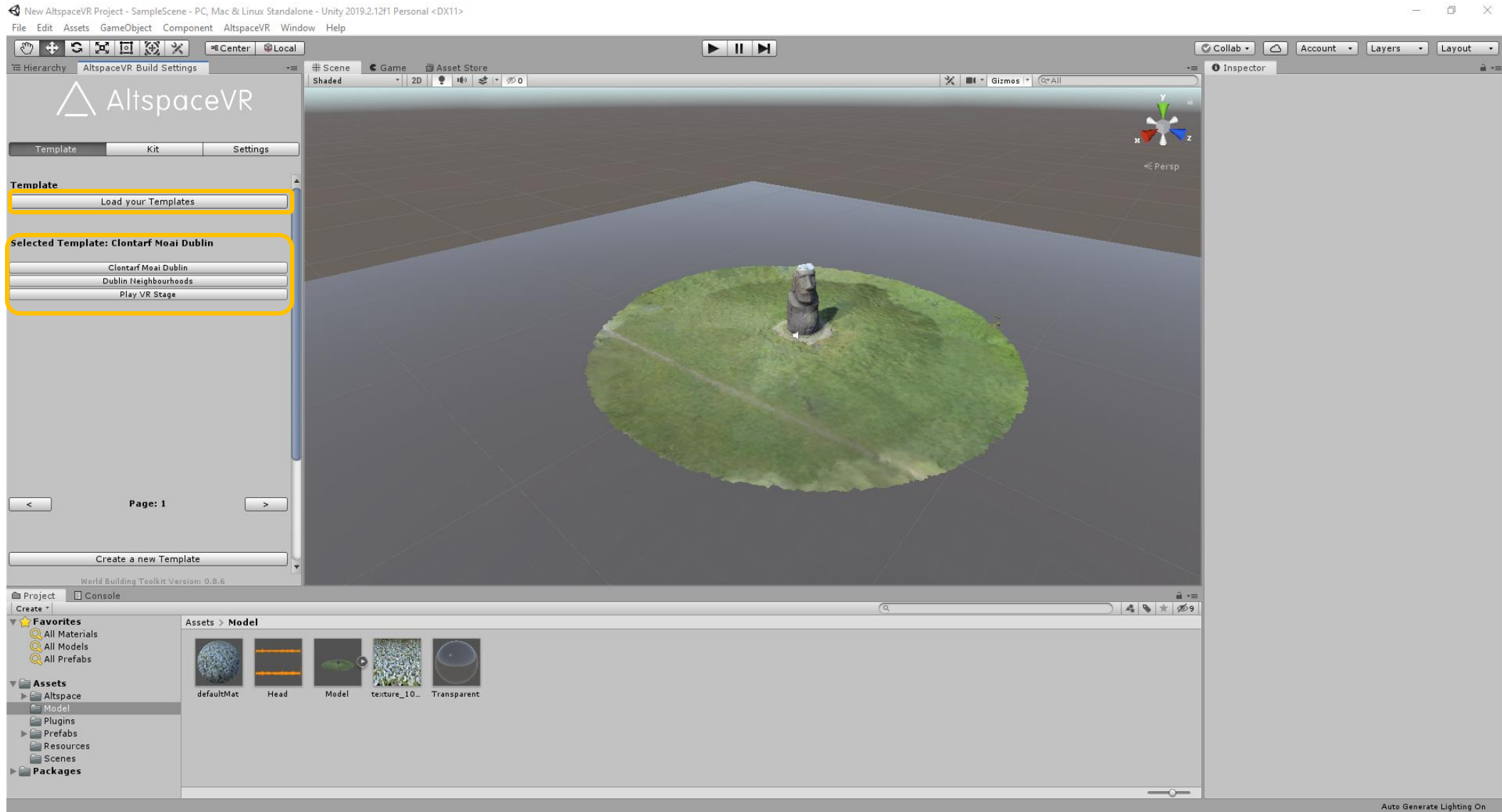


3. Click “Create Template”

Unity Uploader – Select your template

1. Click “Load your Templates”.

2. Select the newly created template from the list.



Unity Uploader – Check Build Settings

1. Select “File => Build Settings”

2. Select “Android”

3. Click “Switch Platform” if you have that option. Wait a few seconds.

4. When the button label changes to “Build” you can exit the build window.

Note: Doing this will help ensure that your AltSpaceVR templates work for mobile VR as well as the AltSpace desktop app

Unity Uploader – Check Player Settings

The screenshot shows the Unity 2019.2.12f1 Personal interface. The 'Edit' menu is open, and 'Project Settings...' is highlighted. The 'Project Settings' window is open to the 'Player' tab. The 'XR Settings' section is expanded, and the 'Virtual Reality Supported' checkbox is checked. The 'Stereo Rendering Mode' dropdown is set to 'Multiview'. Yellow arrows point from the text instructions to these specific settings.

1. Select “Edit => Project Settings”

2. Select “Player”

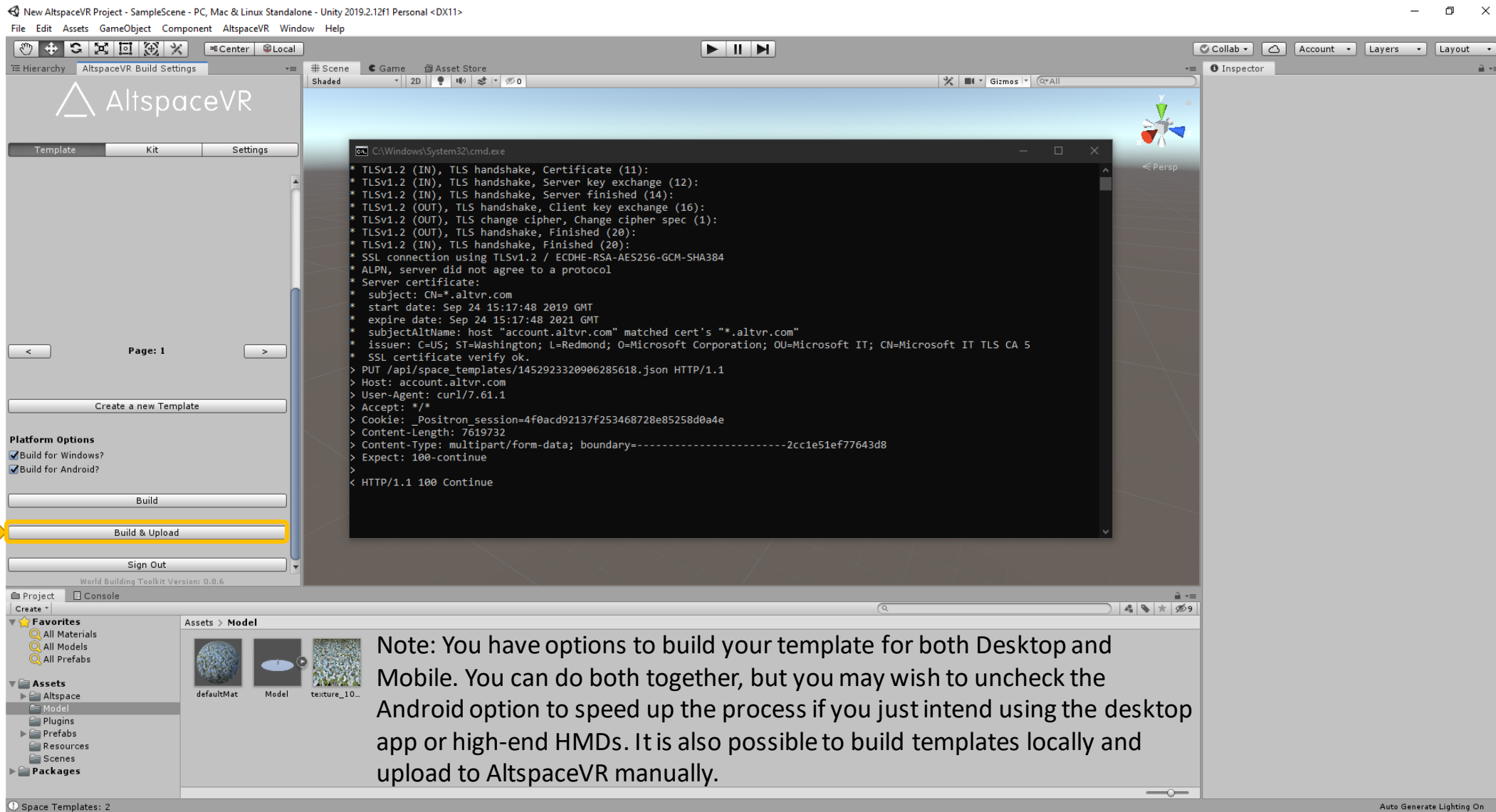
3. Scroll down to “XR Settings” and tick “Virtual Reality Supported”

4. Ensure that the “Stereo Rendering Mode” is set to “Multiview”

Using Unity – Upload your scene

Click “Build & Upload” and your model will begin uploading to AltspaceVR

This may take some time, so please be patient.

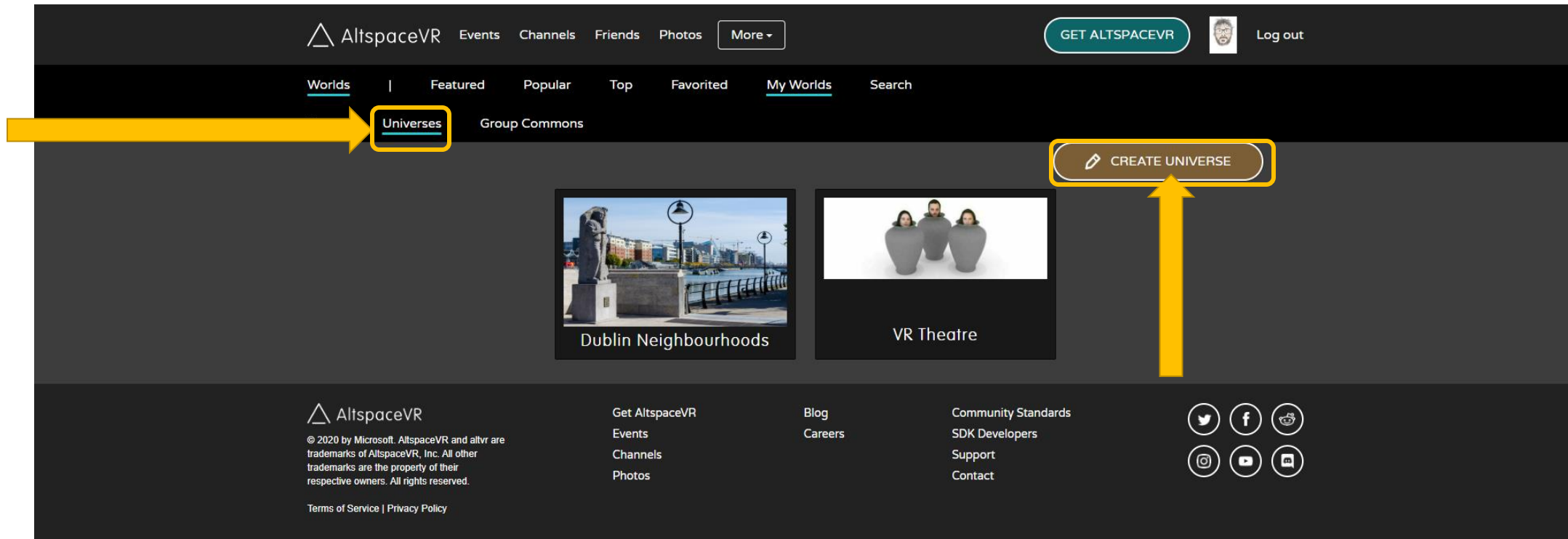


Note: You have options to build your template for both Desktop and Mobile. You can do both together, but you may wish to uncheck the Android option to speed up the process if you just intend using the desktop app or high-end HMDs. It is also possible to build templates locally and upload to AltspaceVR manually.

AltspaceVR Web – Setting up your universe

1. Go to the AltspaceVR website at www.altvr.com and sign into your account
2. Click “More” and select “Worlds”, then go to “My Worlds”

3. Click
“Universes” and



4. Click “Create
Universe”

AltspaceVR Web – Setting up your universe

1. Fill in all the details you want to describe your new universe

Create Universe

Name

Description

Private [?](#)

Image [?](#)
 No file chosen

Profile Image [?](#)
 No file chosen

Remove Profile Image [?](#)

Allow List [?](#)

Youtube Video ID [?](#)

Twitter Handle [?](#)

Tags [?](#)

Ideas

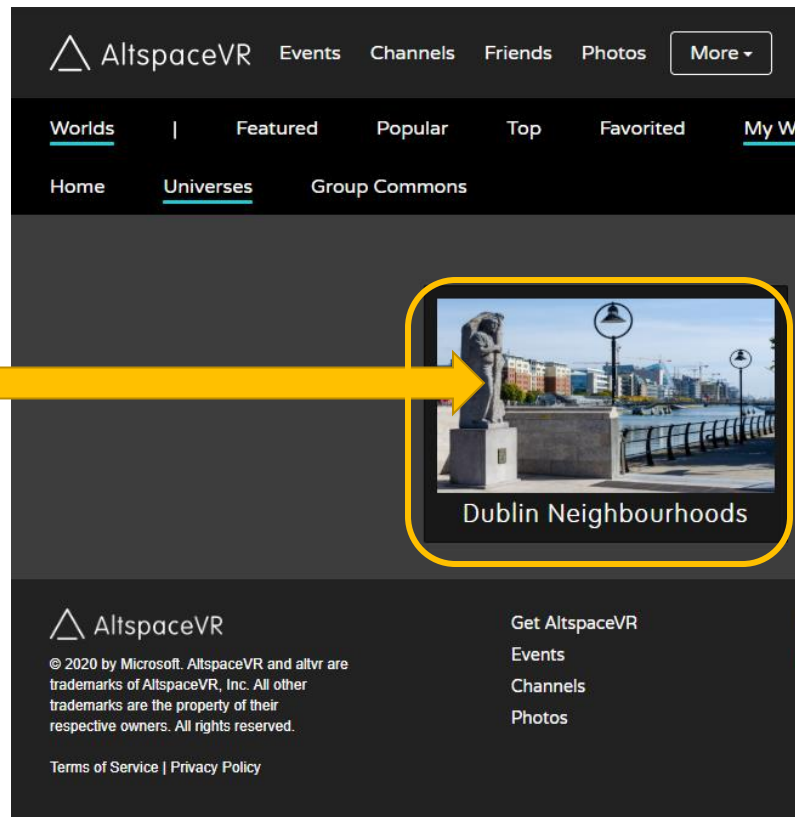
- Star Trek Universe
- Star Wars
- Marvel Cinematic Universe
- Stargate Universe
- Dr. Who Universe

2. Click
“Create
Universe”
to
complete

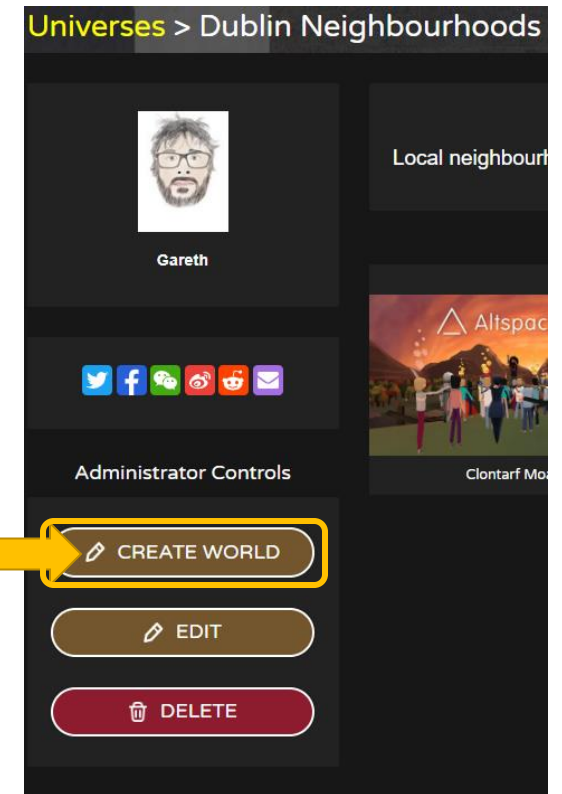
AltspaceVR Web – Setting up your world

- I'm going to use "Dublin Neighborhoods" for my new 3D project

1. Click on your newly created universe



2. Select the option to "Create World"



AltspaceVR Web – Setting up your universe

1. Fill in all the details you want to use to describe your world

Universes > Dublin Neighbourhoods > Create World

Name

Description

Image No file chosen

Private

Unlisted

In VR

Default Contextual Roles

Instructions

Advanced Formatting

Allow List

Share with Friends ?
You can share this after you create it

Select a Template ?

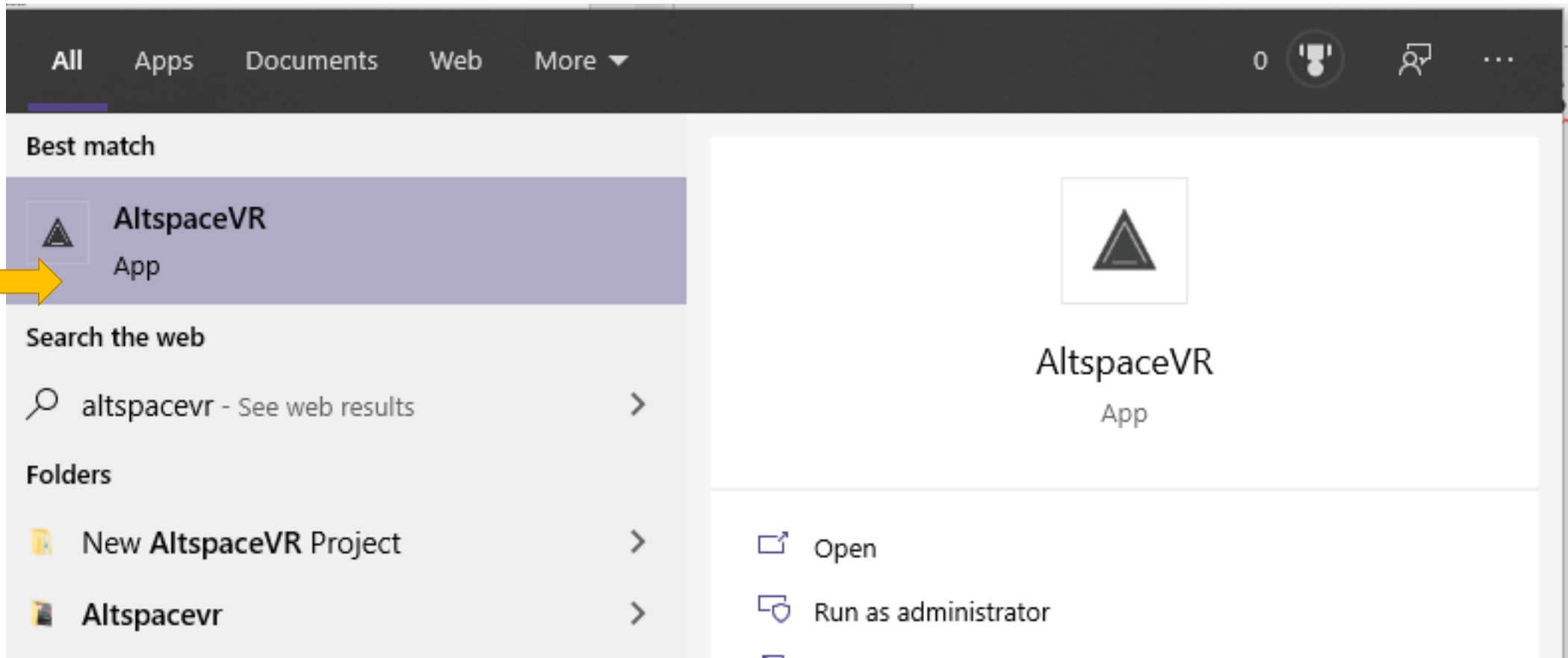
FEATURED & OPTIMIZED Beach	FEATURED & OPTIMIZED Bedside Waterfall	FEATURED & OPTIMIZED City Park
FEATURED & OPTIMIZED Cool Sky	FEATURED & OPTIMIZED Suburban Dreams	Clontarf Moai Dublin
Dublin Neighbourhoods	Play VR Stage	Holograms Against Reality
Rooftop Games	Office Olympics	Street Hoops
Club Stage	Club Improv	Vista Stage

2. Make sure to select the “Template” that you created and uploaded earlier

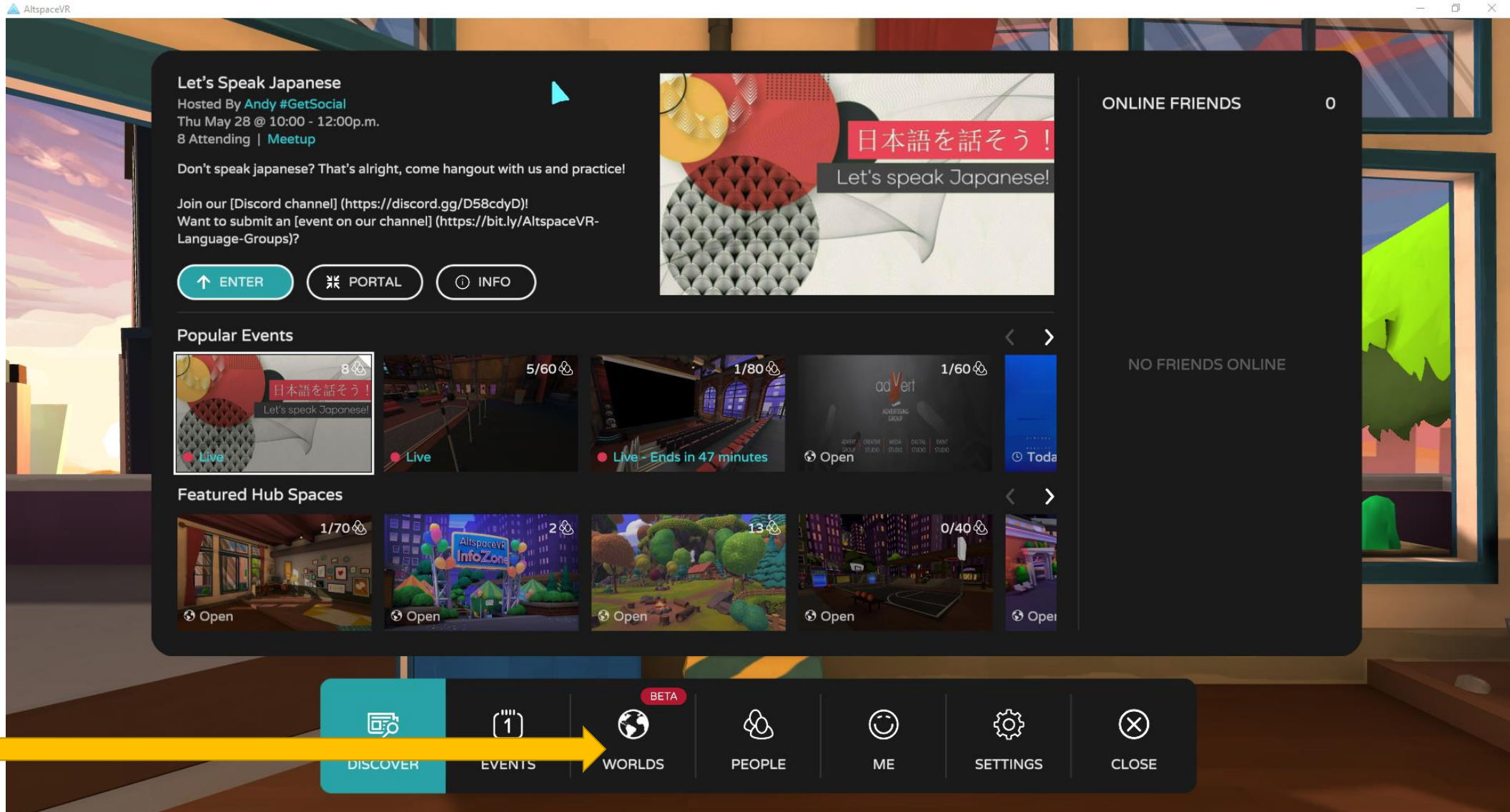
3. Click “Create World”

AltspaceVR App – Entering your world

- Open the AltspaceVR application on your PC



AltspaceVR App – Entering your world

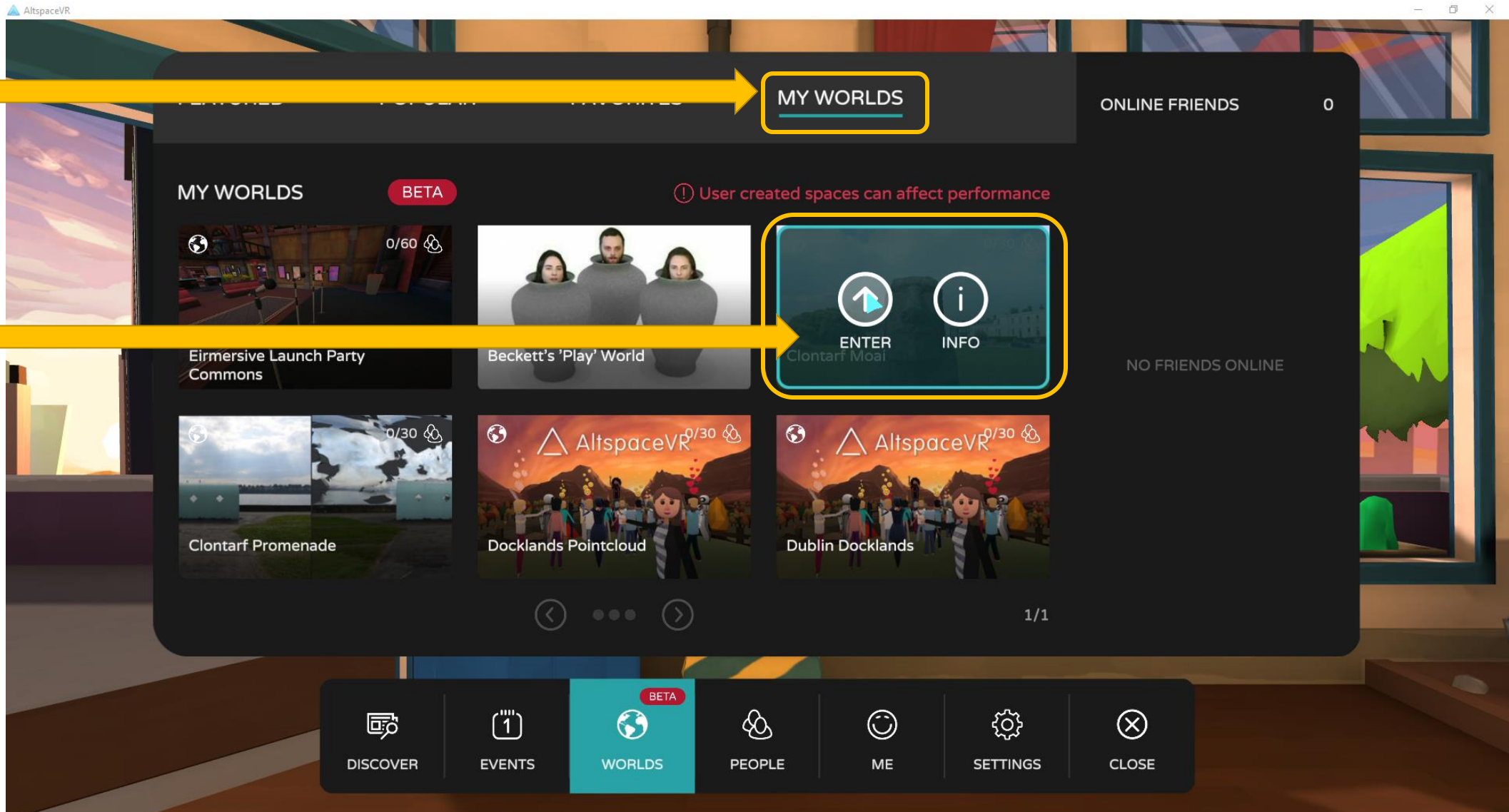


Go to
"Worlds"

AltspaceVR App – Entering your world

Go to
“My
Worlds”

“Enter”
your new
model

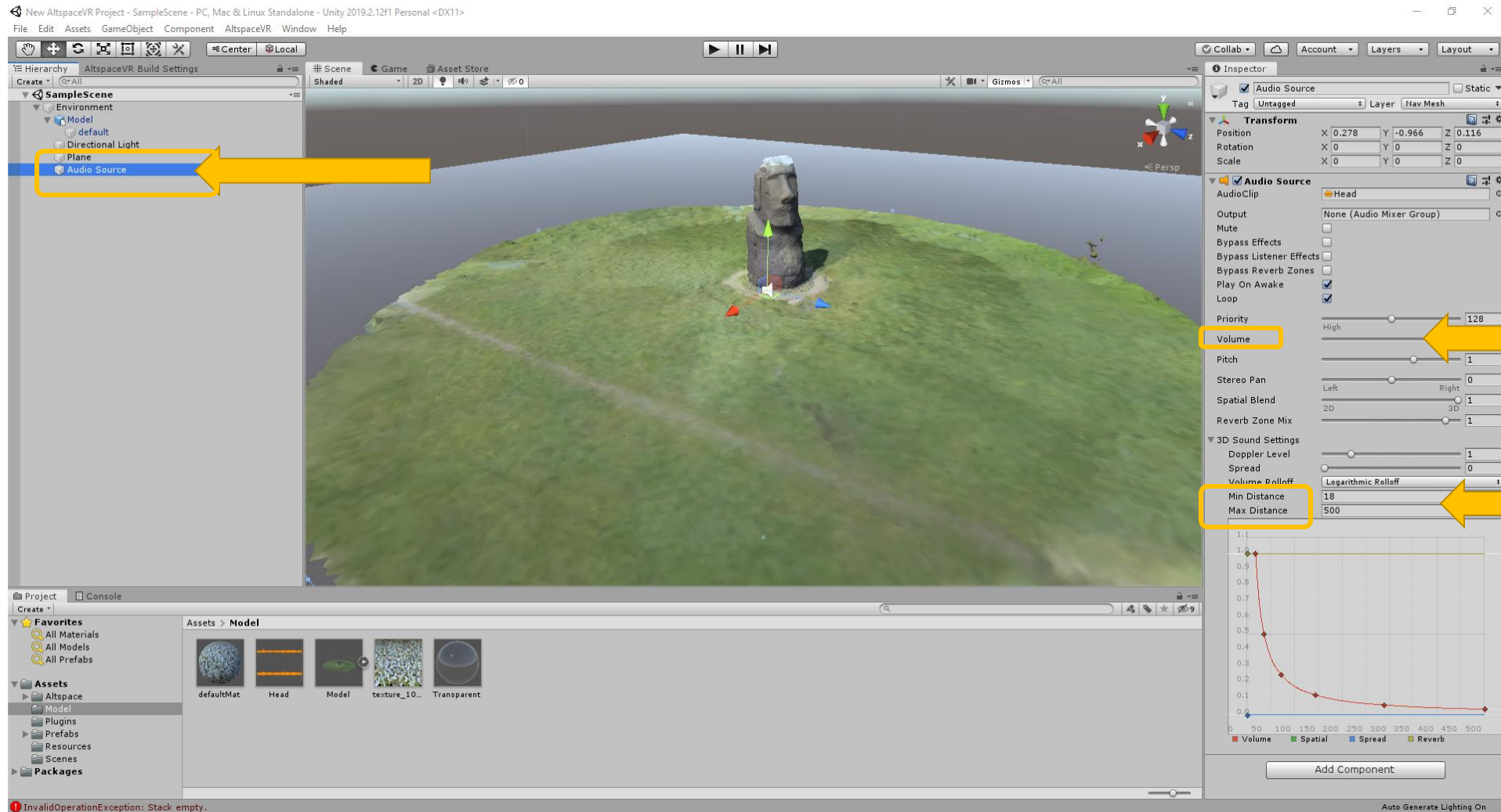


AltspaceVR App – Entering your world



AltspaceVR App – Modifying your world

There may be some trial and error with the scale of the model and the volume of the audio, but these are easy to fix

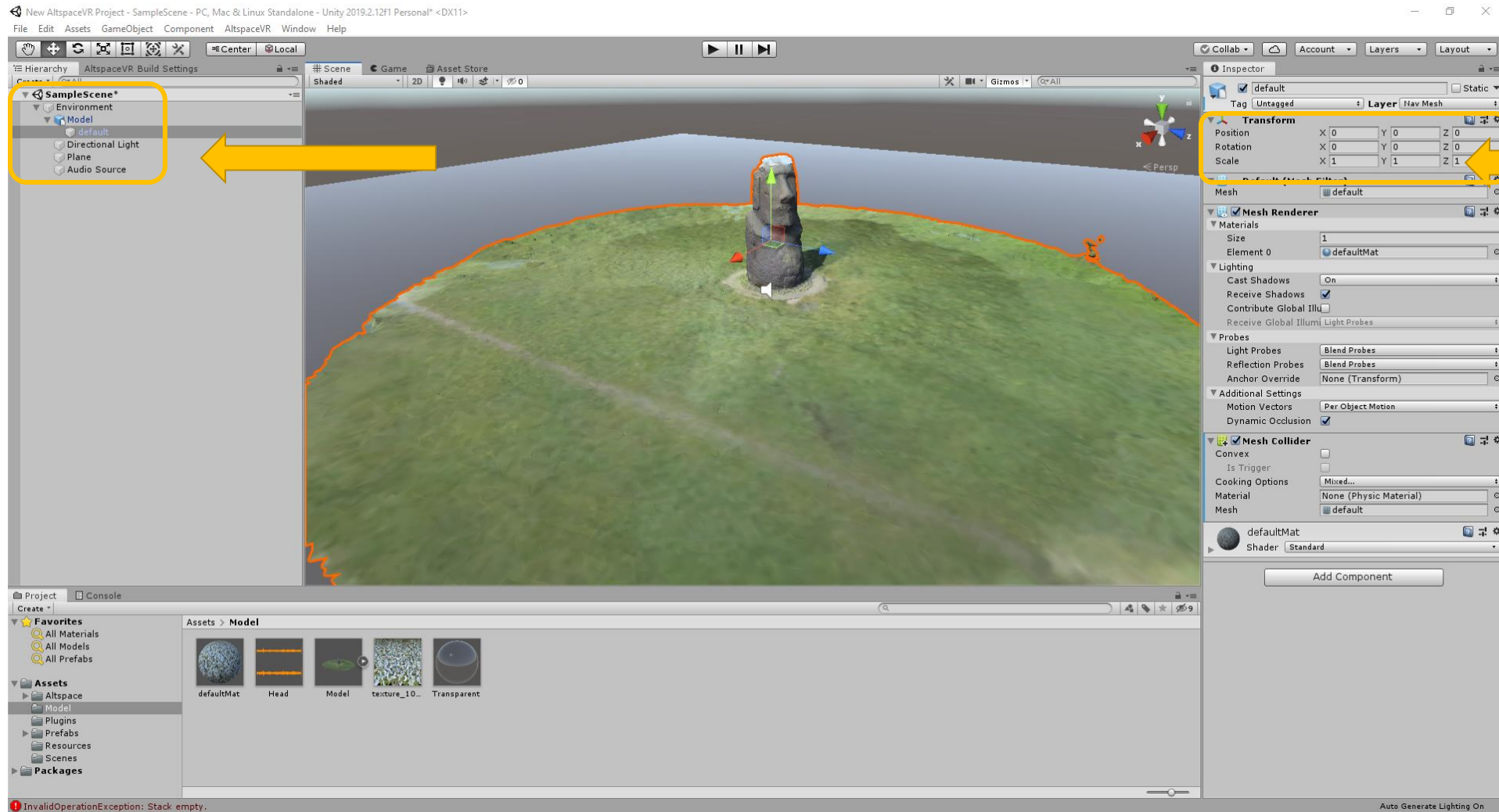


Turn down the volume

Change the audio "Max" and "Min"

AltspaceVR App – Modifying your world

You might notice that the “Hierarchy” has changed - this is due to the “AltspaceVR Build Settings” and isn’t anything to be worried about and you can still find the same objects as before



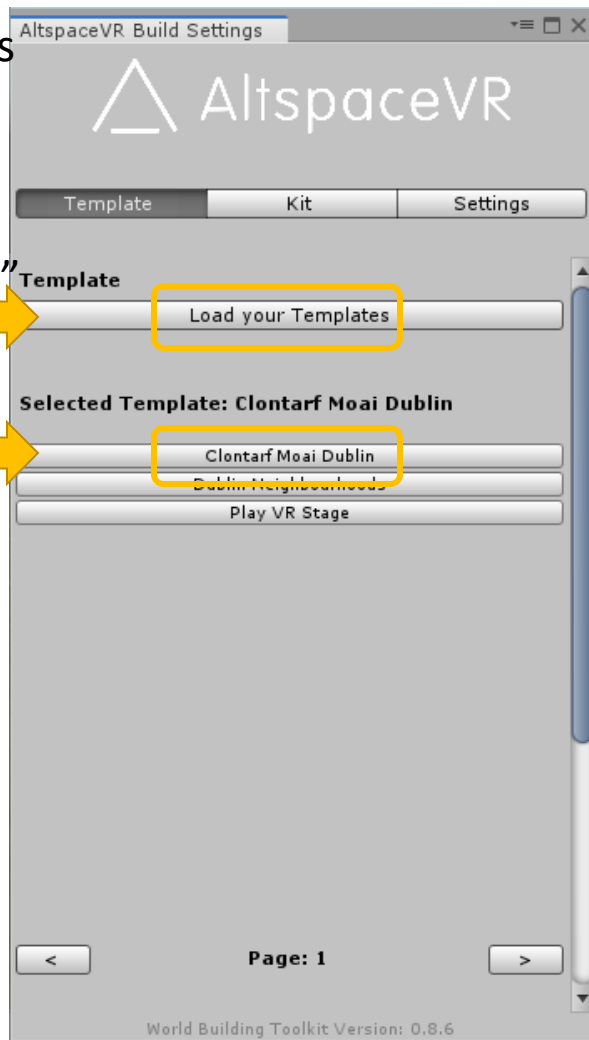
Change the scale and position of the model

You can also experiment adding more objects to further enhance your scene

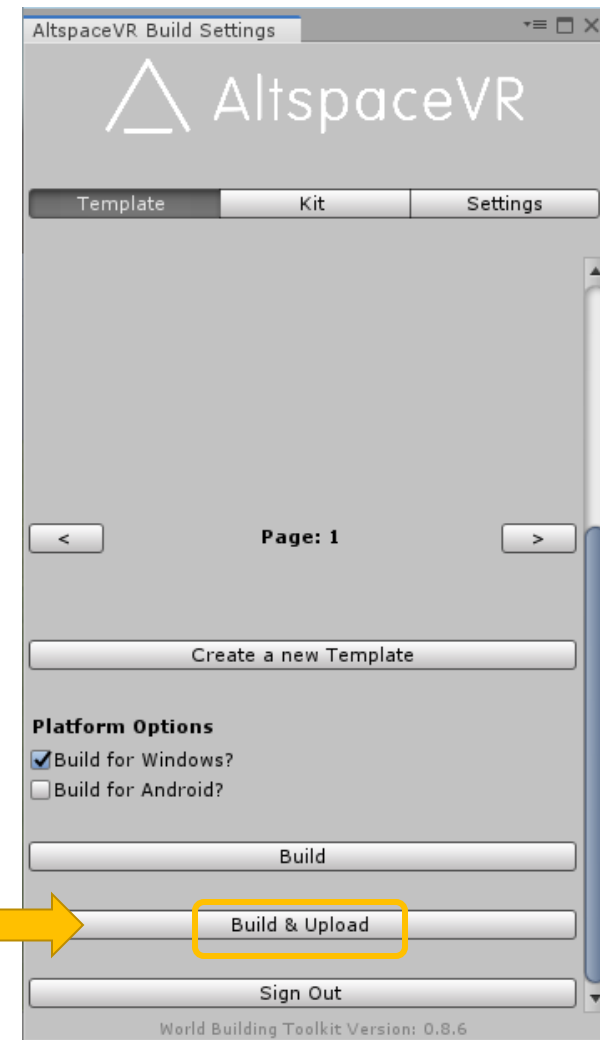
AltspaceVR App – Modifying your world

Rebuild your world as before

Left-click
“Load your Template”
and
Select your template

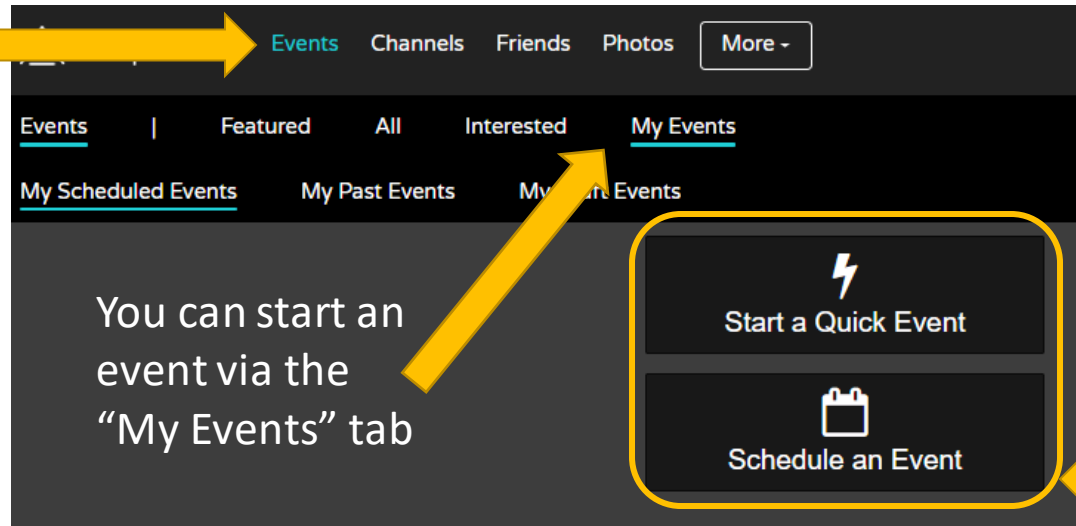


Click
“Build & Upload”



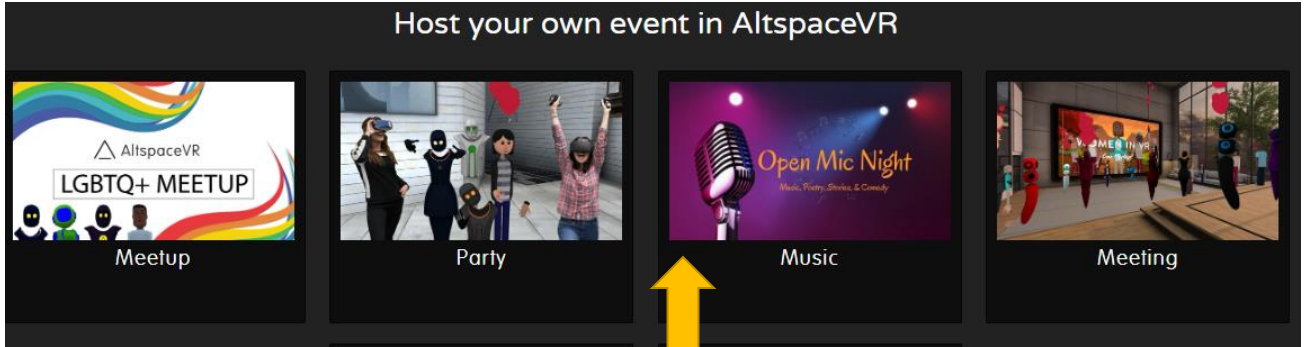
AltspaceVR App – Creating an Event

Log into your AltspaceVR account via the website



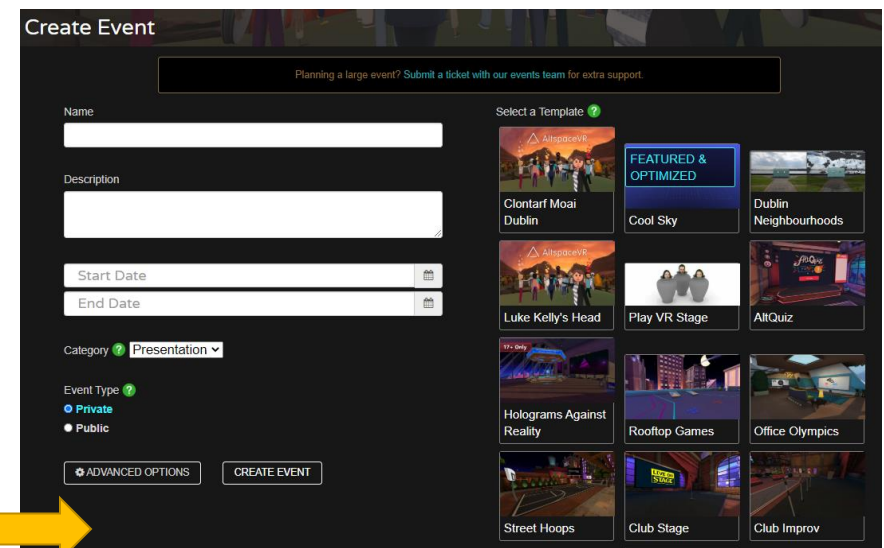
You can start an event via the "My Events" tab

There should be two option for scheduling an event



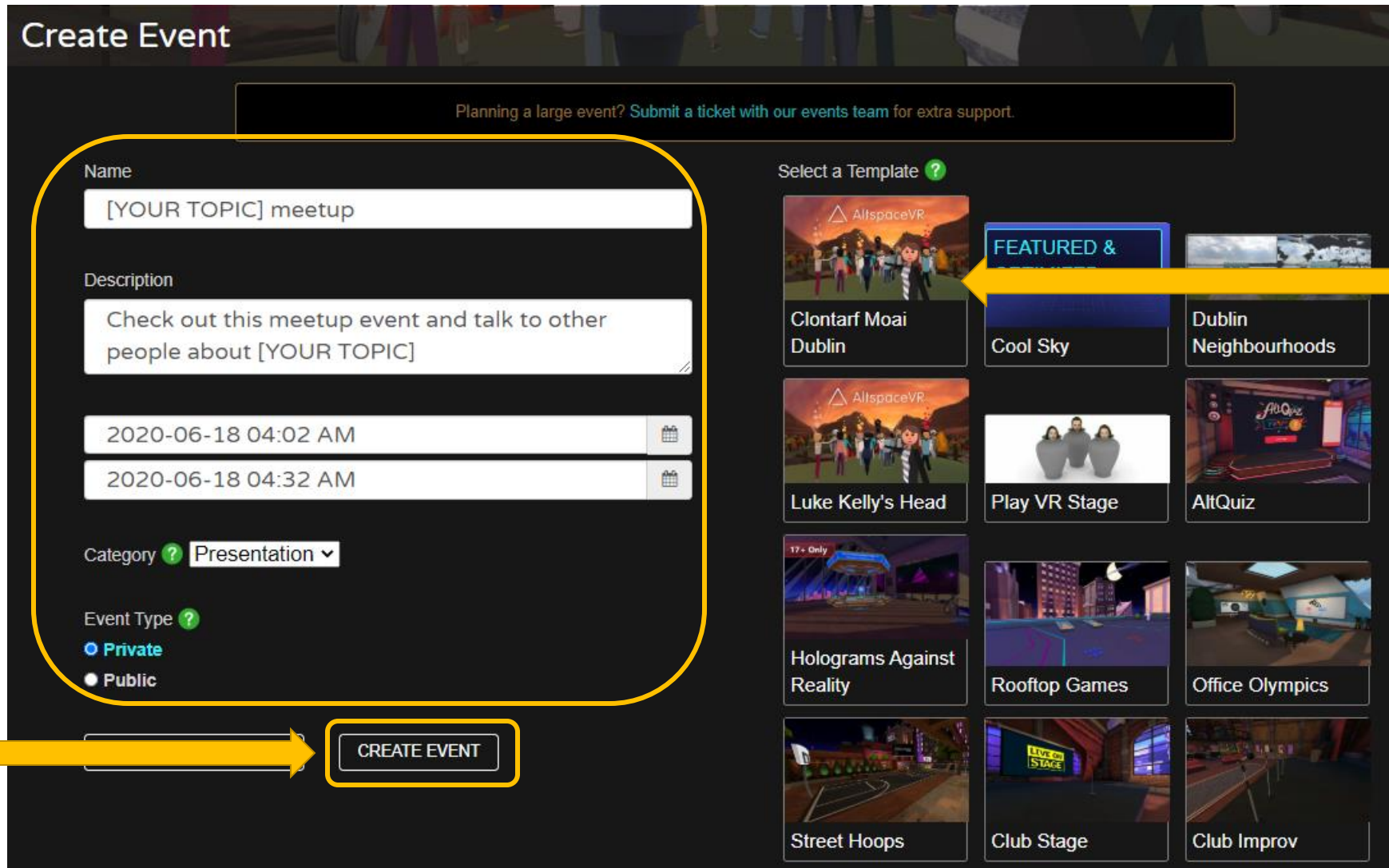
If you select "Start a Quick Event" you will be presented with different template options

If you select "Schedule an Event" you will be presented with customization options



AltspaceVR App – Creating an Event

1. Once you have selected an event type, the “Start a Quick Event” option will give you prompts as to what to enter for each section

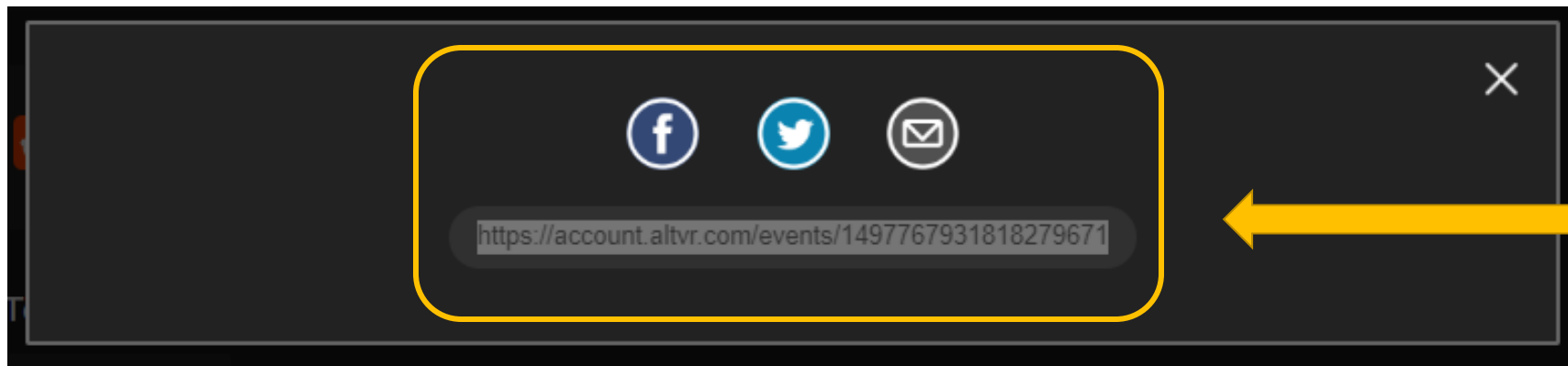
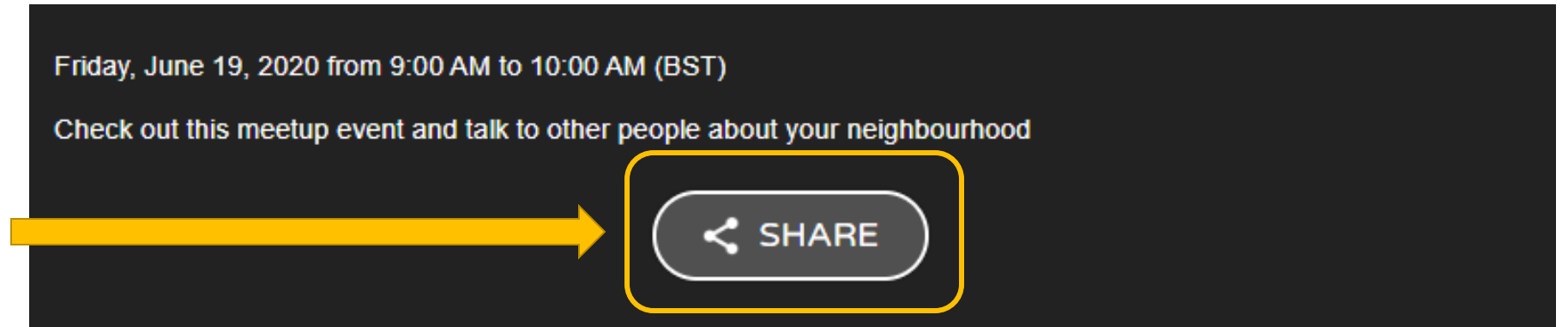


2. Select the “Template” that you have just created

3. Click “Create Event” when you are ready

AltspaceVR App – Creating an Event

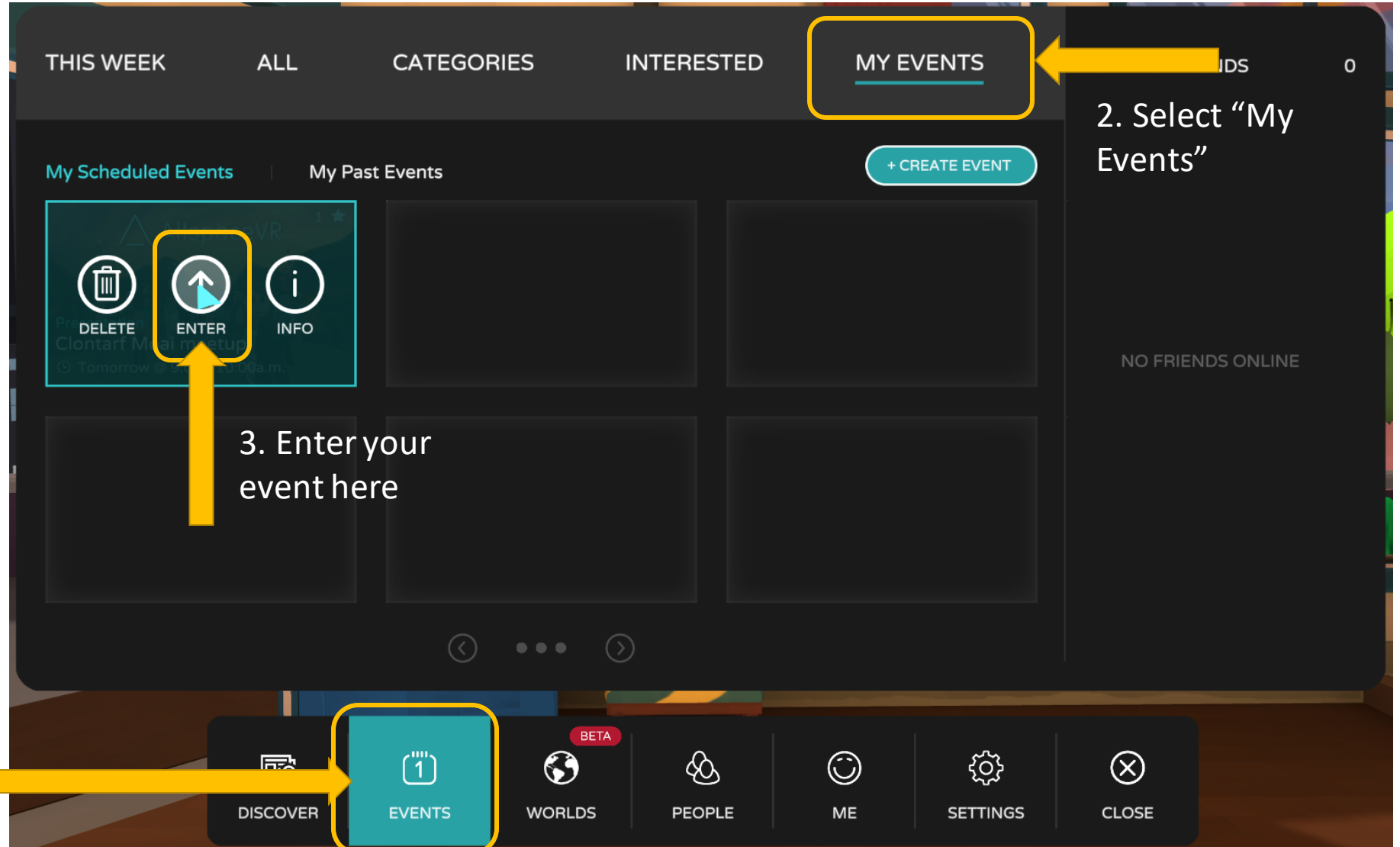
1. Once you have created your event you will then be able to share the event link



2. You can copy the link to share via your own network or you can select one of the option above the link to share on social media or via email

AltspaceVR App – Creating an Event

Back in the Altspace app, you can now enter your event and prepare it for visitors



1. Open the Altspace menu and select events

3. Enter your event here

2. Select "My Events"

AltspaceVR App – Creating an Event

You should now be in your event world. When your event is scheduled to start, you can control the space via the “Host Tools”

You can find more information about running AltspaceVR events here:
<https://medium.com/@SimonDarksideJ/running-an-event-in-altspacevr-an-end-to-end-guide-57f5c993cc9d>



Select the “Host Tools” menu and select “Amplify My Voice” to make sure everyone can hear you clearly

Finished!

- This process can take a while so take it in stages while you become familiar with each platform
- The time it takes you will diminish as you practice. However, it does also depend on your PC specifications
- Further details can be found on the project website:

https://virtualarchitectures.github.io/ground_truthing_and_virtual_field_trips/





Thank You!



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Sciences
Institute**



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