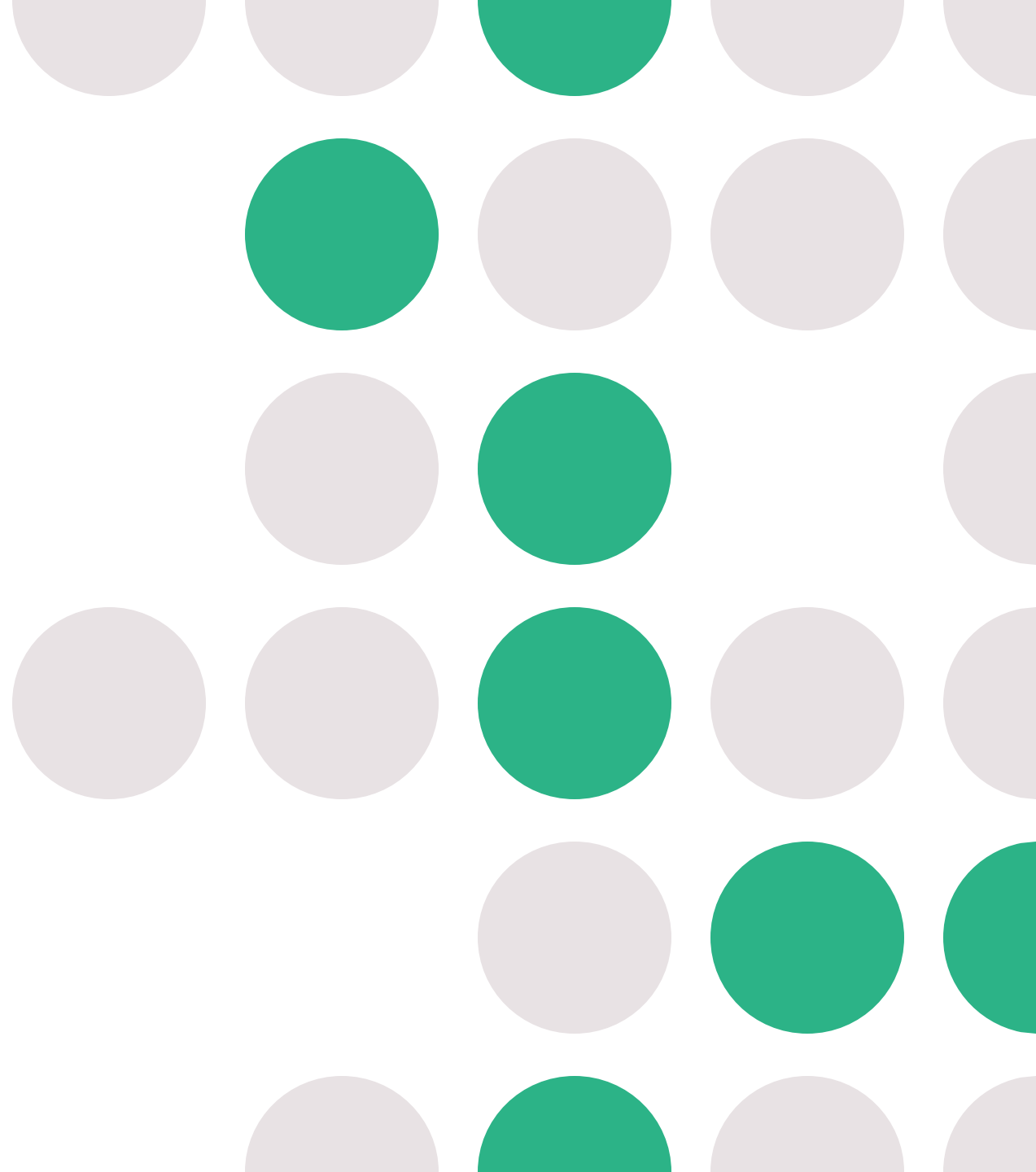


CITA

April 5th

2023

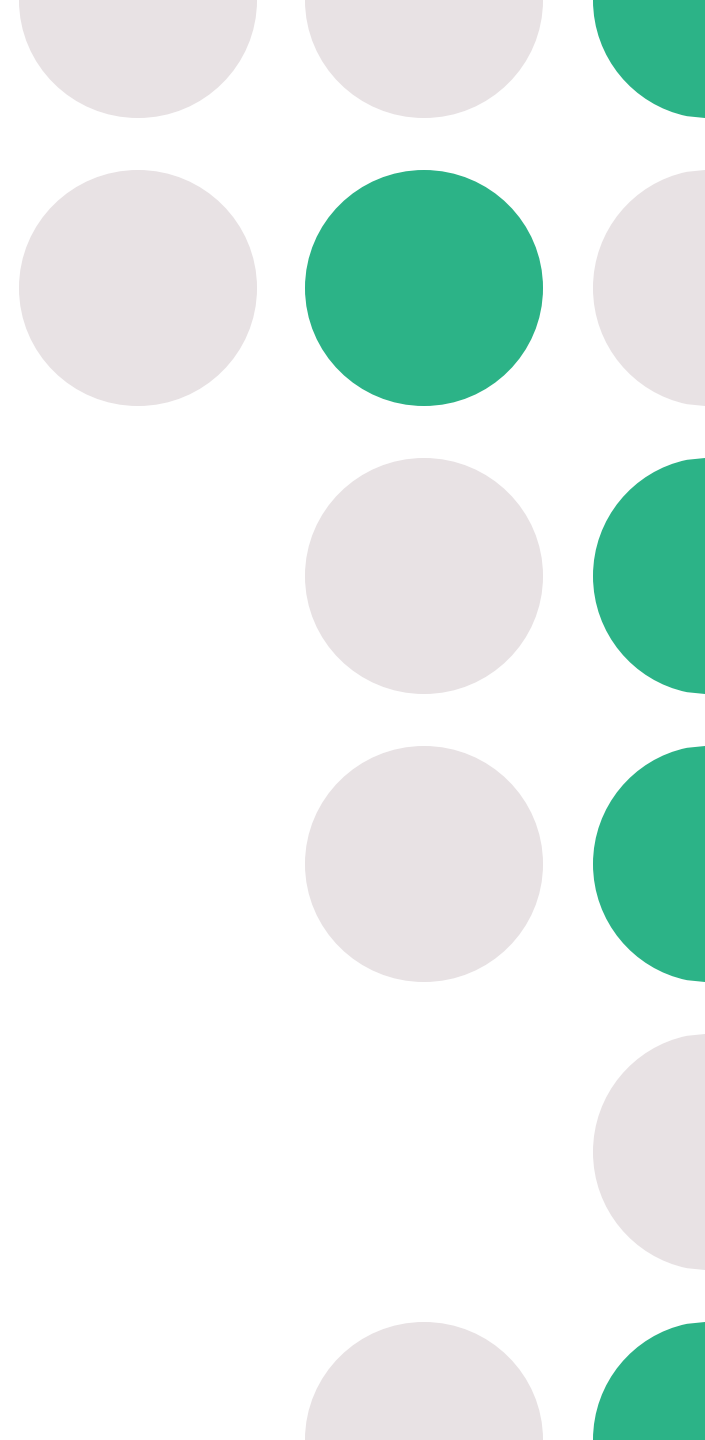
Jonathan Reinhardt MCIAT
Diatec Technical Consultant
MSc. BIM, BSc. Arch. Tech (Hons)



Agenda

1.0 SME Research – TU Dublin

2.0 Autodesk Construction Cloud



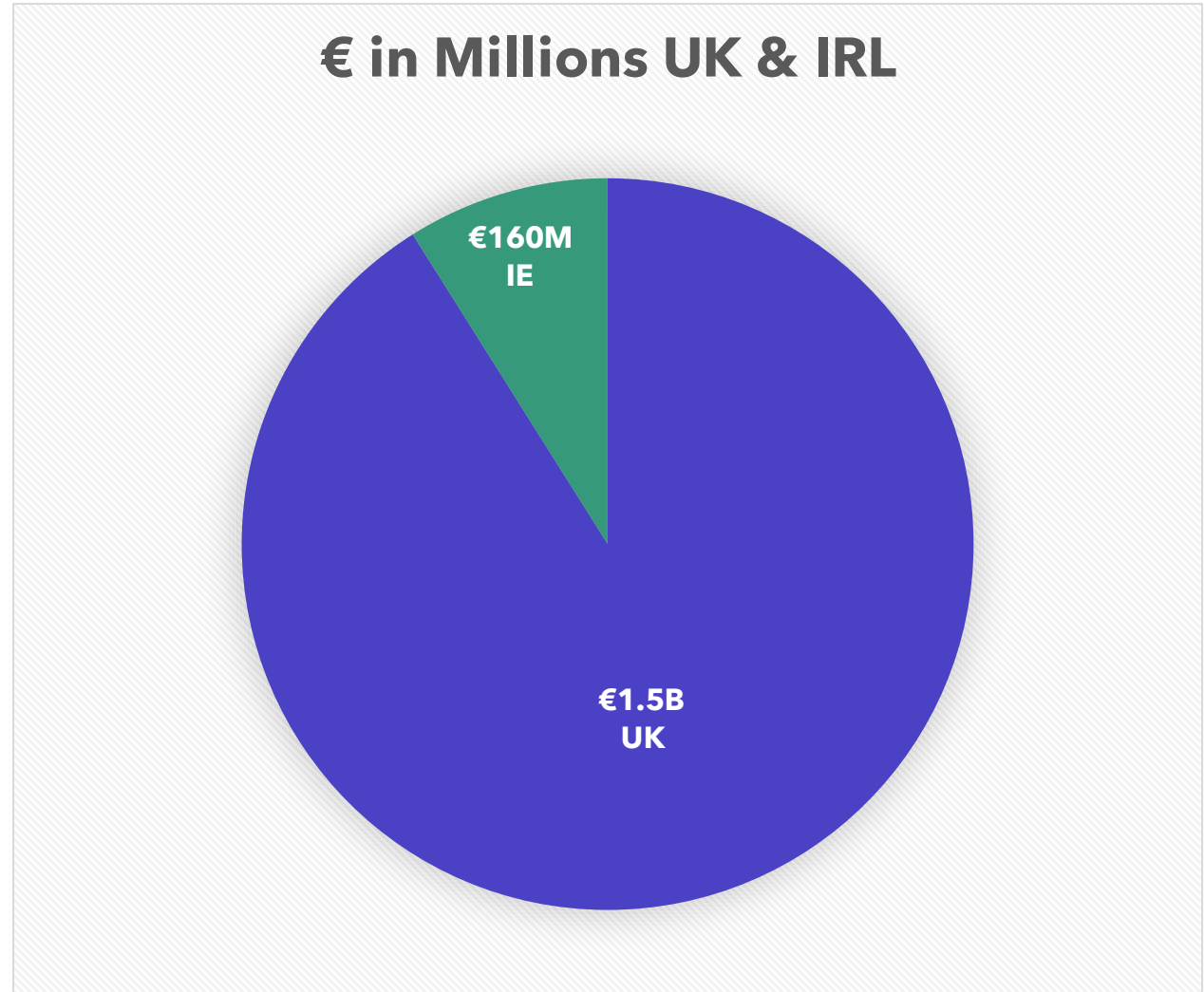
1.0 Micro & SME Research

Work In
Progress...

Small Project Market

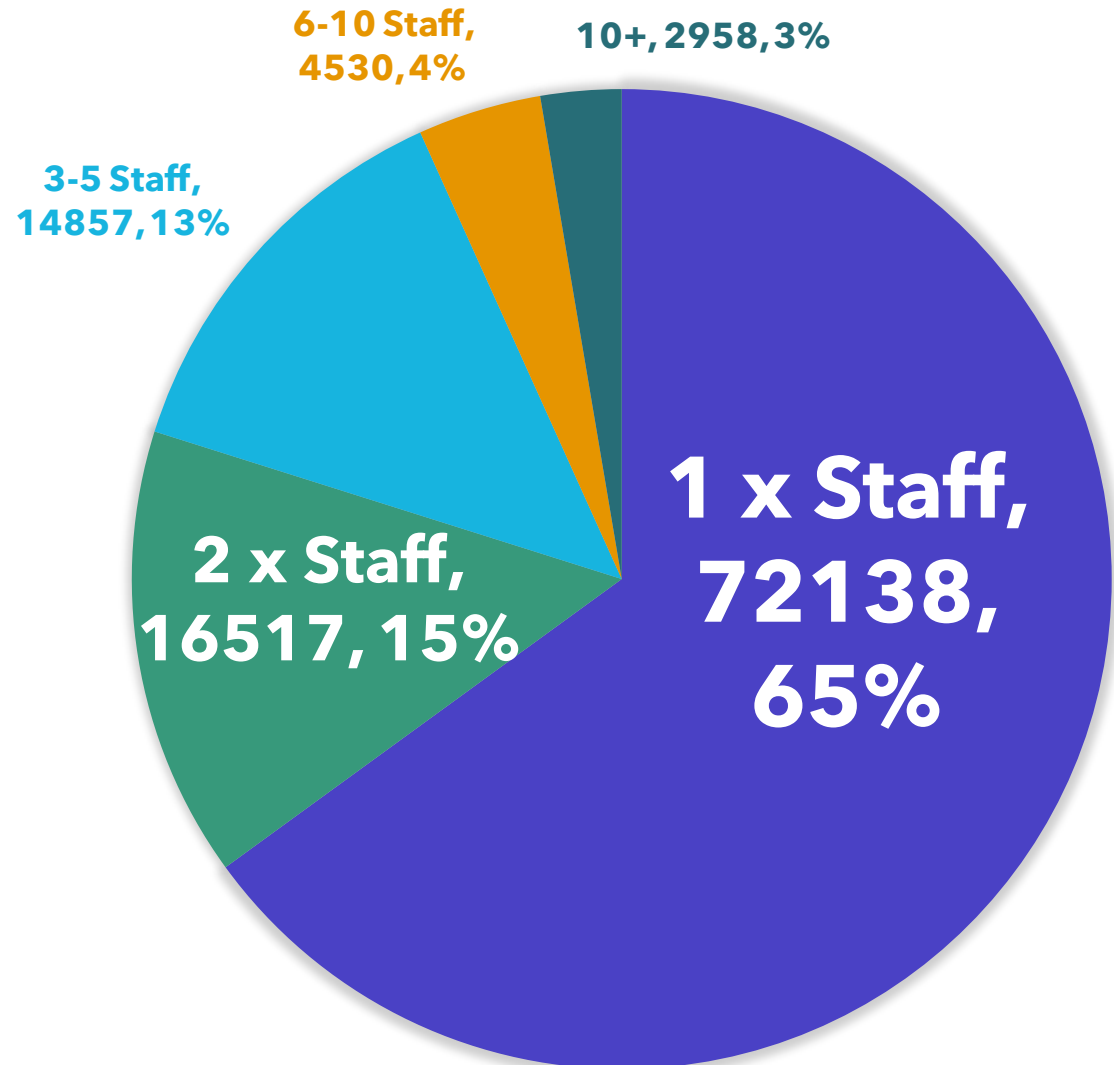
* Small scale housing projects such as house extensions, loft conversions and one-off individual houses.

EU Small Project
Fee Value
56% or €12B

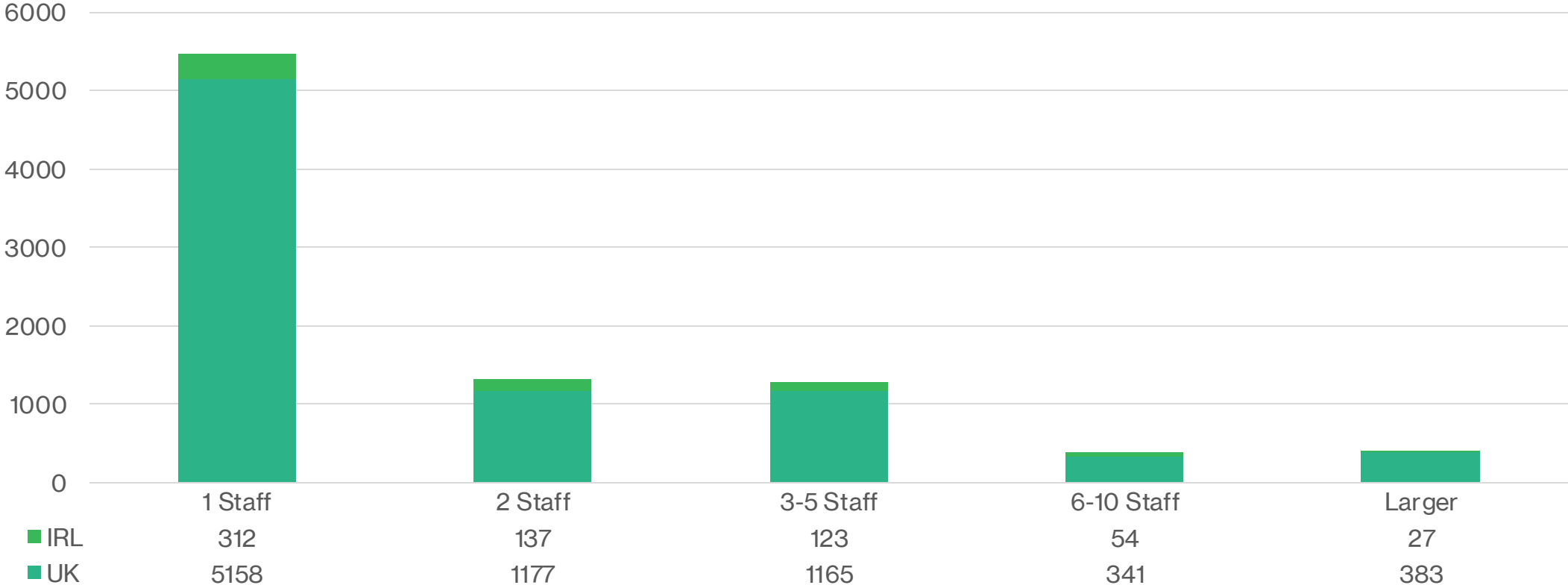


No. of Small Firms

111k Design Firms in Europe



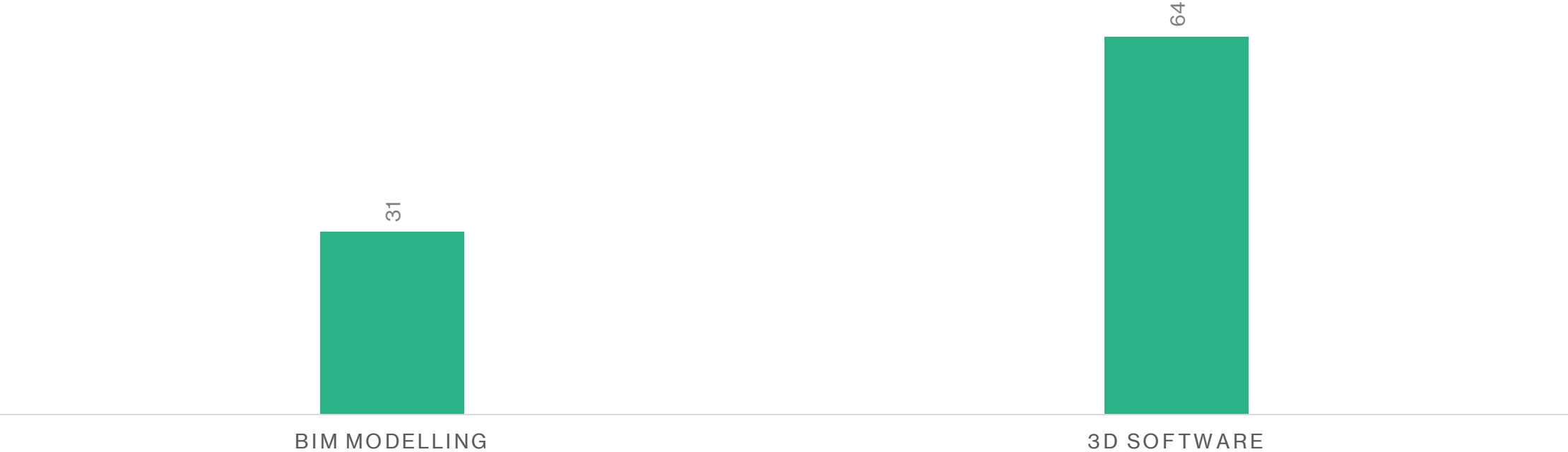
UK & IRL Small Firms



Europe % Technology Usage

(All firms Sizes – Sml & Lrg)

EUROPE



Small BIM

“For a sole practitioner or SME envisaging BIM adoption, it is not practical to seek the implementation of the ISO 19650 standard from the start, as it can quickly lead to being overwhelmed by the process and nomenclature involved, which risks reverting back to 2D CAD”

RIAI BIM Pack - 2022

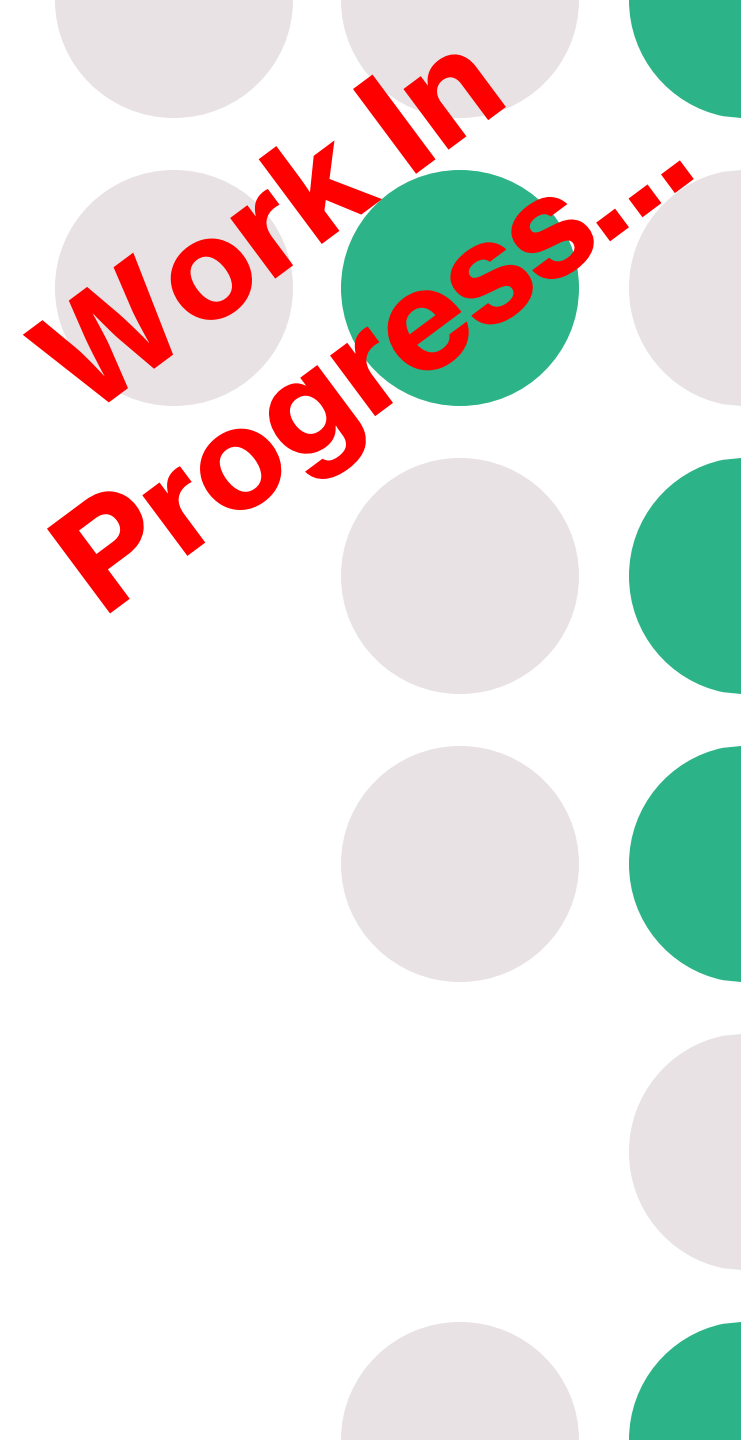
**We need a Small
Project BIM
Standard...**

‘SBIM’

**Work In
Progress...**

Barriers to BIM - Results

- Cost of software
- Lack of skills In-house
- Learning curve (loss of time)



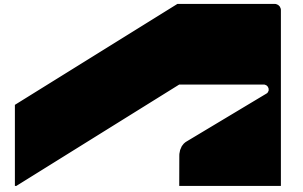
Literature so far...

- Smaller Projects are Non-collaborative – less issues with exchange of information, interoperability.
- sBIM Focus on gaining business Efficiency rather than collaborative effectiveness
- These are benefits for small firms.

Work In
Progress...

Diatec & Revit LT for Small Projects

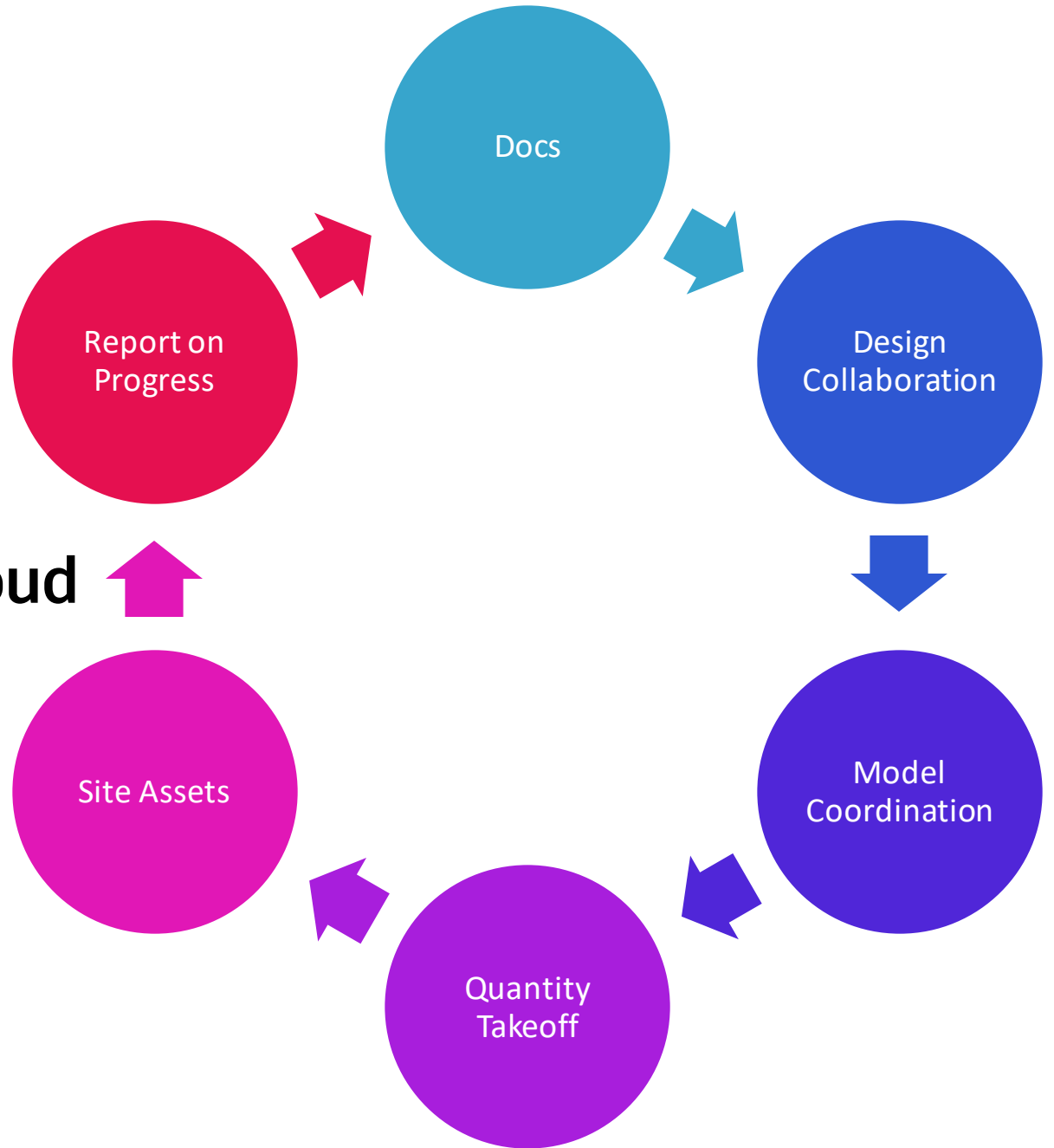
- Diatec launching Revit LT for Small Projects course
- Self paced video content designed specifically for small design firms
- Maximising service quality & business efficiency for smaller firms



2.0 Autodesk Construction Cloud

Good Information Practice

AUTODESK Construction Cloud



Autodesk Docs

- Naming Enforcement
- ISO 19650

The screenshot shows the Autodesk Construction Cloud interface. The browser address bar displays the URL: `acc.autodesk.com/docs/files/projects/d385b848-72f7-4277-b501-cc8d466b42ee/settings?folderUrn=urn%3Aadsk.wiprod%3Afs.folder%`. The page title is "AUTODESK Construction Cloud". The navigation menu on the left includes: Docs, Files, Reviews, Transmittals, Issues, Reports, Members, Bridge, and Settings. The main content area is titled "Settings" and has three tabs: "Attributes", "Naming standard" (which is selected), and "Advanced settings". Under the "Naming standard" tab, the current setting is "Default - ISO 19650". There are two sections for customization: "File attributes" and "Folder enforcement". The "File attributes" section shows a "Naming convention" of "PROJECT - ORIGINATOR - ZONE - LEVEL - TYPE - Role - DRG NO." and "Related attributes" of "REV - STATUS". The "Folder enforcement" section has a link to "Select folders". The "Holding area" section contains a checkbox labeled "Enable holding area for non-conforming files" which is checked, with an information icon to its right.

Autodesk Docs

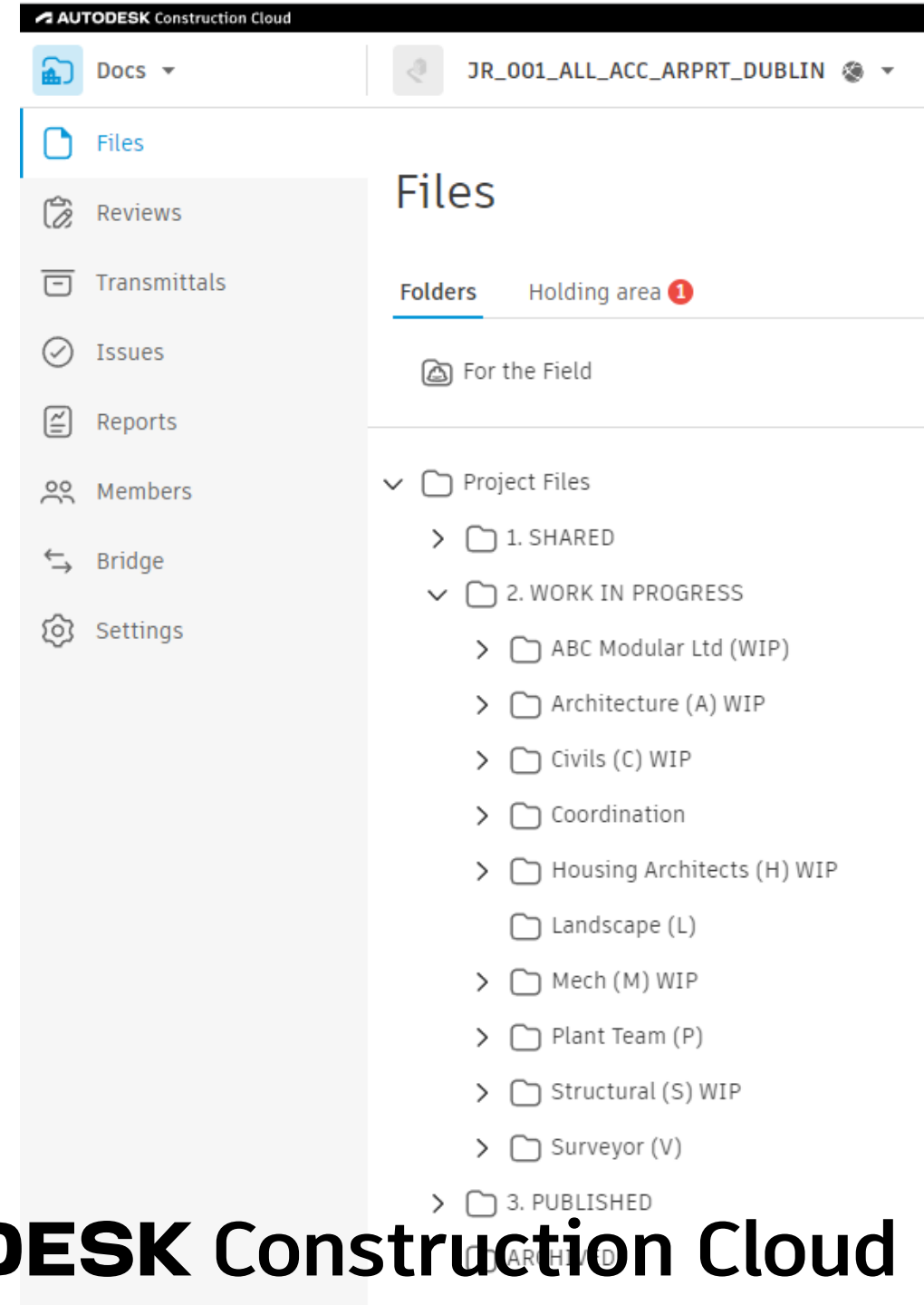
- Automatic Metadata population on Upload

The screenshot shows the Autodesk Docs interface. At the top, there's a navigation bar with 'Docs' and a breadcrumb 'JR_001_ALL_ACC_ARPRT_DUBLIN'. A user profile for 'Jonathan REINHARDT' is visible in the top right. On the left, a sidebar contains navigation options: Files, Reviews, Transmittals, Issues, Reports, Members, Bridge, and Settings. The main area is titled 'Files' and shows a 'Holding area' with a folder 'For the Field'. Below this, a tree view shows 'Project Files' expanded into '1. SHARED', '2. WORK IN PROGRESS', and '3. PUBLISHED', with sub-folders like 'Airfield', 'Architecture', and 'Civils'. A blue 'Upload files' button is present. Below the button, a table lists the uploaded file. The table has columns: Name, IGINATOR, ZONE, LEVEL, TYPE, DRG NO., and STATUS. The file '00015-KS-01-00-DR-A-001.pdf' is listed with metadata: ZONE: 01, LEVEL: 00, TYPE: DR, DRG NO.: 001, STATUS: S1. This row is highlighted with a red border. At the top right of the table area, there are buttons for 'Export', 'Search and filter', and 'Settings'.

Name ^	IGINATOR	ZONE	LEVEL	TYPE	DRG NO.	STATUS
<input type="checkbox"/> 00015-KS-01-00-DR-A-001.pdf		01	00	DR	001	S1

Autodesk Docs

- Folder Structure
- ISO 19650



Autodesk Docs

- Manage Access by Role or Company

The screenshot displays the Autodesk Docs interface. On the left, the 'Files' section shows a folder tree under 'Project Files'. The folder '1. SHARED' is highlighted with a red box. In the center, there is an 'Upload files' button and a table of files. On the right, the 'Permissions' panel shows a list of users and roles with their respective permissions, also highlighted with a red box.

Files

Folders Holding area 1

For the Field

Project Files

- 1. SHARED
- 2. WORK IN PROGRESS
 - ABC Modular Ltd (WIP)
 - Architecture (A) WIP
 - Civils (C) WIP

Upload files

<input type="checkbox"/>	Name ^	with Bridge	Markup	Shared
<input type="checkbox"/>	ABC Modular Ltd	--	--	--
<input type="checkbox"/>	ACME Subbies Ltd	--	--	--
<input type="checkbox"/>	Architecture (A)	--	--	--
<input type="checkbox"/>	Civils (C)	--	--	--

Permissions

1. SHARED
Users: 3 Companies: 1 Roles: 2

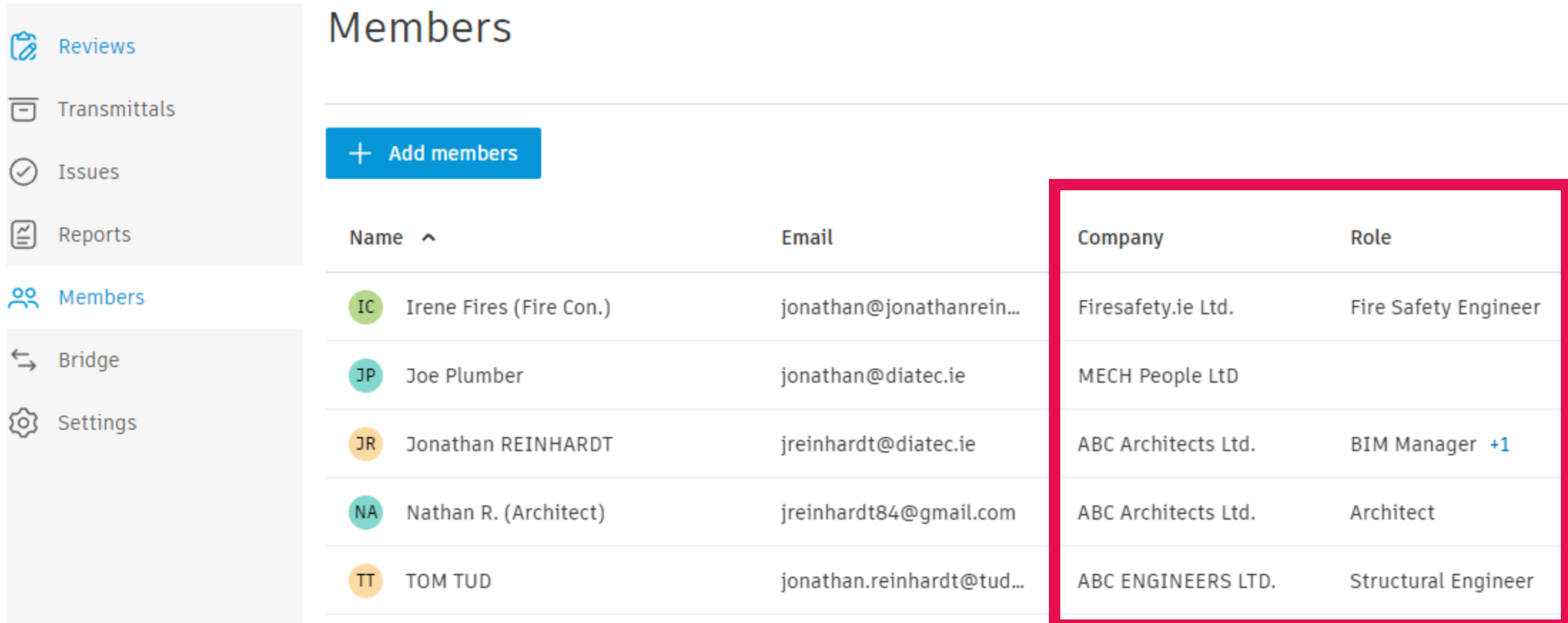
+ Add

Search for name or email

Name	Permissions	Type
Jonathan REINHA...	Manage	User
Architect	Create	Role
BIM Manager	Manage	Role
DiatecACC	View	Company

Autodesk Docs

- Use Roles & Companies per user

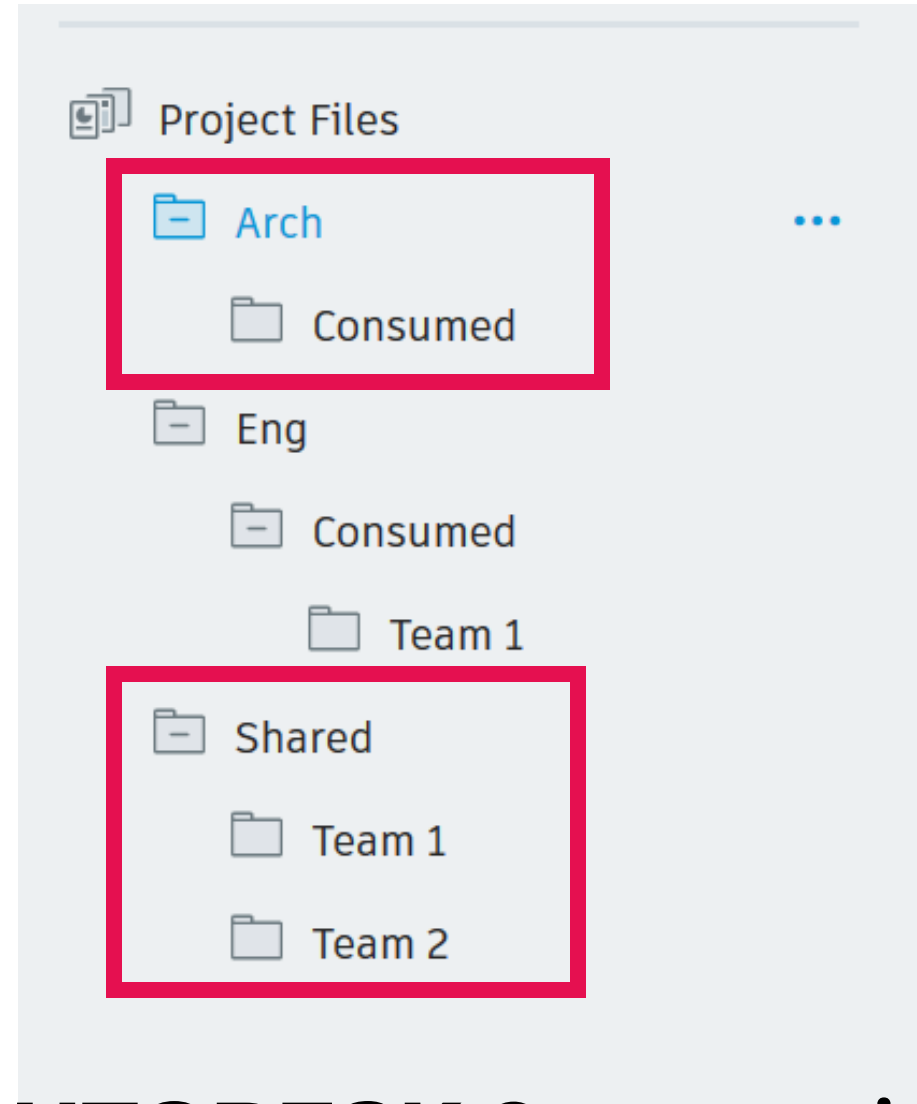


The screenshot shows the 'Members' page in Autodesk Docs. On the left is a navigation menu with options: Reviews, Transmittals, Issues, Reports, Members (highlighted), Bridge, and Settings. The main content area is titled 'Members' and features a blue '+ Add members' button. Below the button is a table of users. The table has columns for Name, Email, Company, and Role. The last three columns (Company and Role) are highlighted with a red border. The table contains the following data:

Name	Email	Company	Role
IC Irene Fires (Fire Con.)	jonathan@jonathanrein...	Firesafety.ie Ltd.	Fire Safety Engineer
JP Joe Plumber	jonathan@diatec.ie	MECH People Ltd	
JR Jonathan REINHARDT	jreinhardt@diatec.ie	ABC Architects Ltd.	BIM Manager +1
NA Nathan R. (Architect)	jreinhardt84@gmail.com	ABC Architects Ltd.	Architect
TT TOM TUD	jonathan.reinhardt@tud...	ABC ENGINEERS LTD.	Structural Engineer

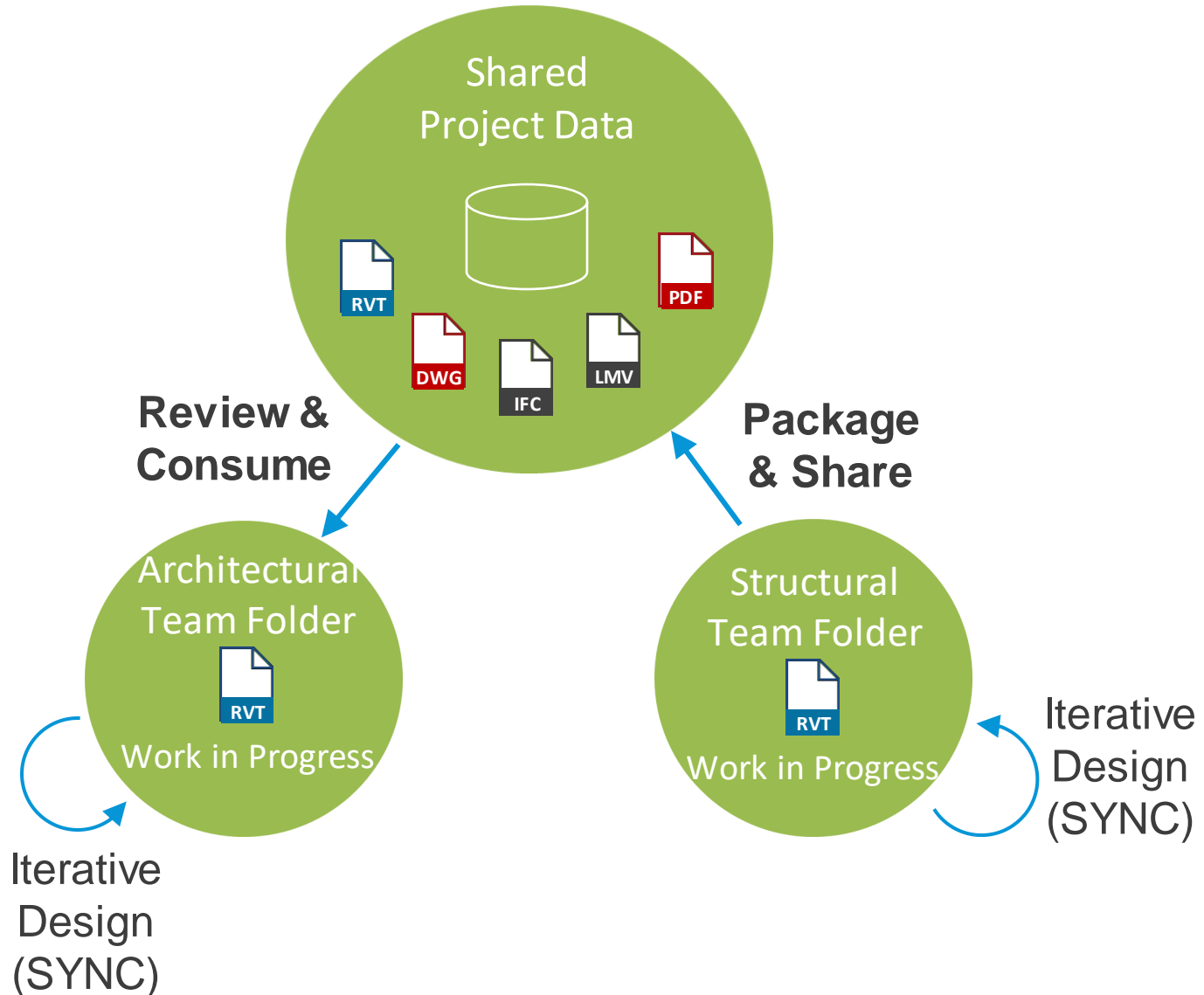
Autodesk Design Collaboration

- Manage data that is shared
- WIP & SHARED Intelligent

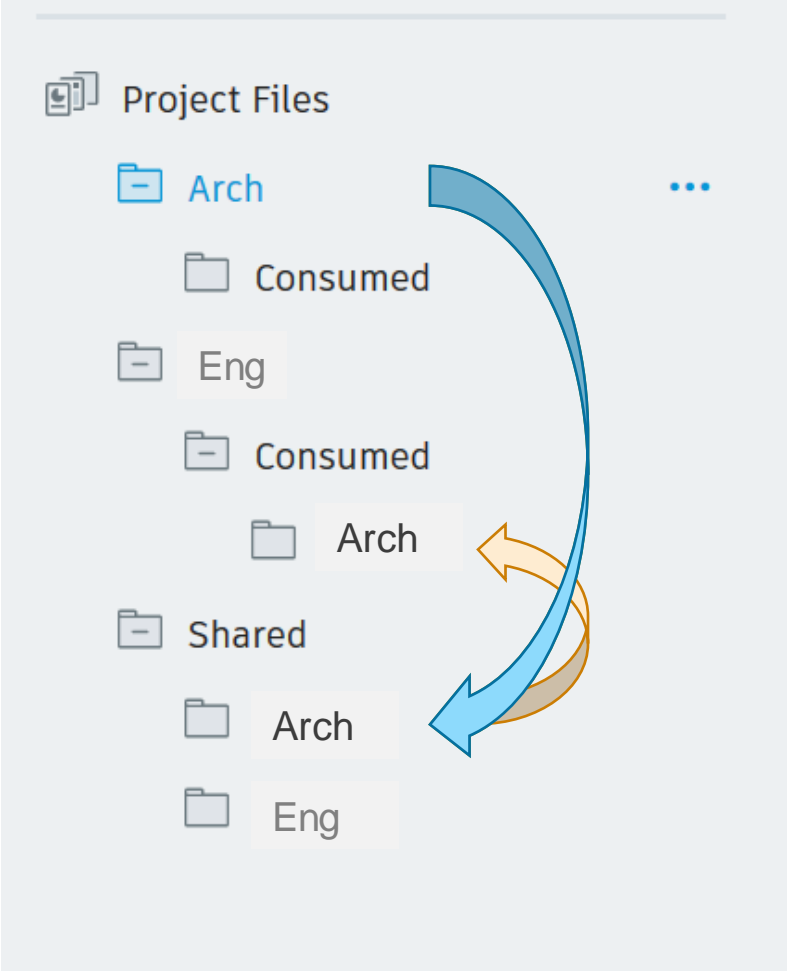
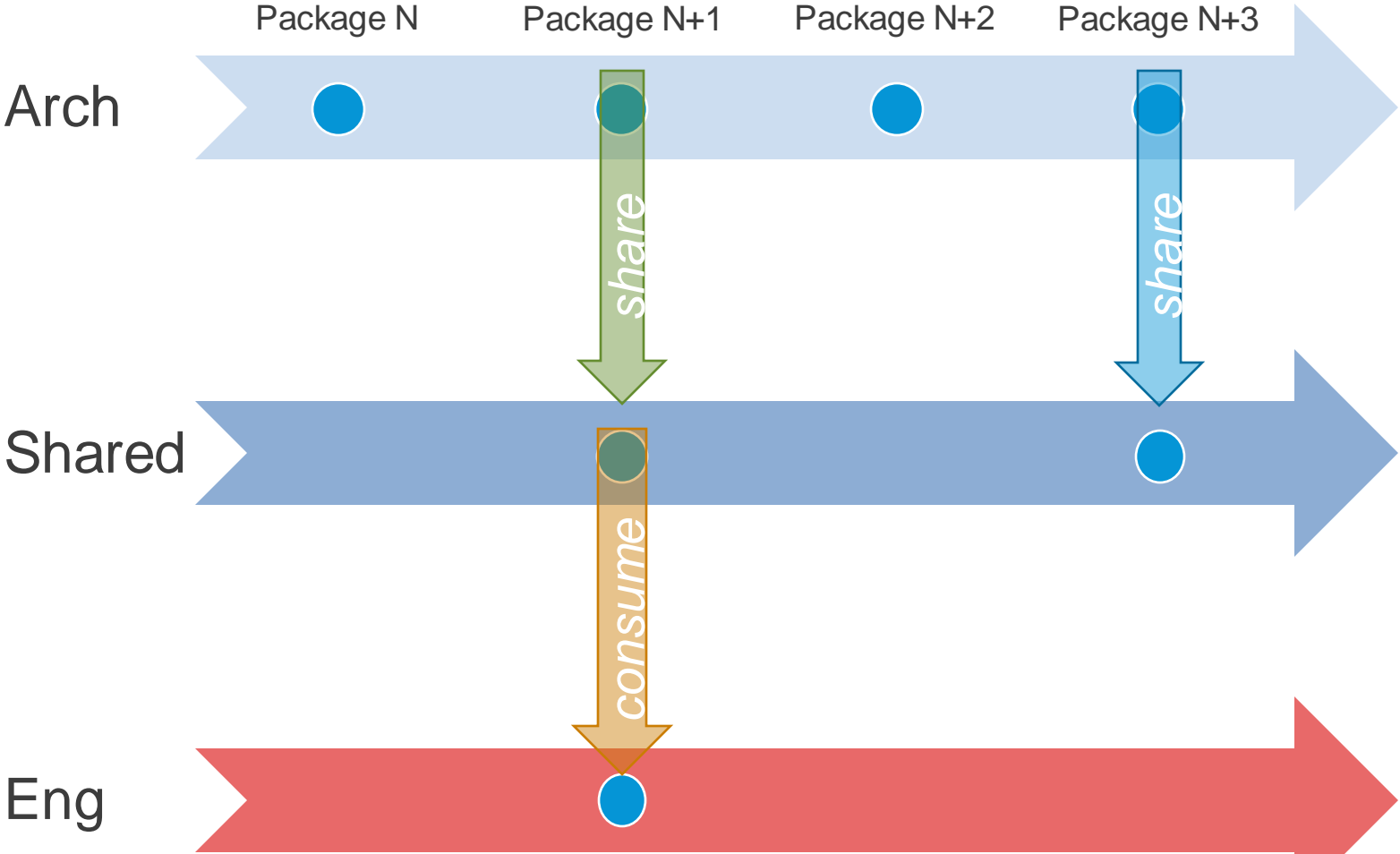


Autodesk Design Collaboration

- A Revit model from another team is **published**.
- Same team creates and shares a **package**.
- The published model is '**consumed**' by a member of the recipient team, and all users in that team now has access to new data.
- Allows review of design and data prior to impacting work by the larger team.
- Link path should show: *BIM360//Project Name/Project Files/Your Team Name/Consumed/Other Team Name/FileName.rvt*



Sharing and Consuming a package



Autodesk Design Collaboration

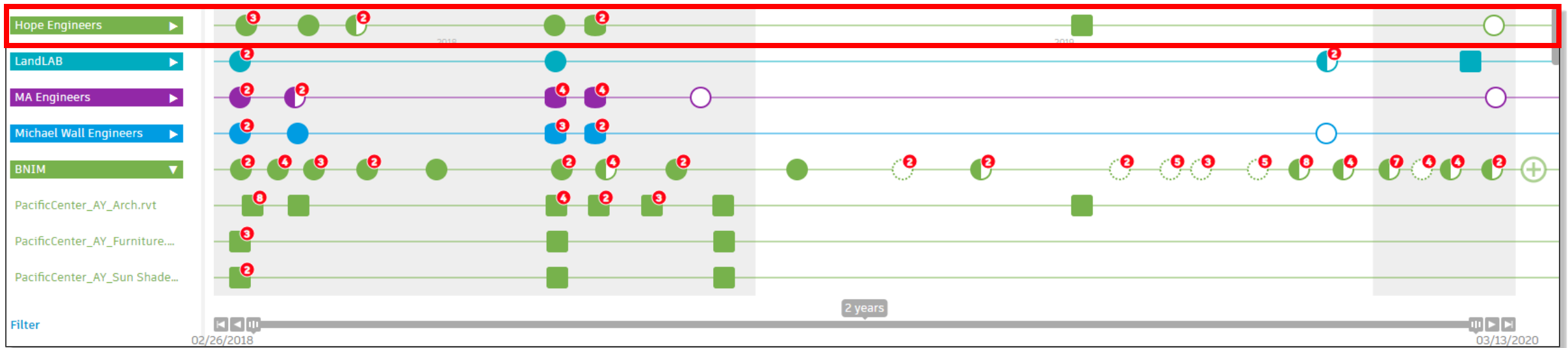
- Dedicated team lanes for each stakeholder
 - Review packages created by your team
 - Access packages shared by other teams and consume their data
 - Review when a Revit model was published
 - Review all Revit models saved to a team folder

The screenshot displays the Autodesk Design Collaboration interface for the 'United Construction - Pacific Center Campus' project. The top navigation bar includes the Autodesk BIM 360 logo and project details. The main area is titled 'Design Collaboration' and features a timeline view with team lanes for Hope Engineers, LandLAB, MA Engineers, Michael Wall Engineers, and BNIM. The timeline shows various colored circles representing issues or updates, with a '2 years' duration indicated. Below the timeline, a summary bar shows 13 Sets, 144 Sheets, 11 3D views, and a Project Model. The interface is divided into two main sections: a table of Sets and a table of Issues.

Sets	Sheets	3D views	Update date
Presentation	0	2	Jul 13, 2019 12:37 AM
A 100 series	53	1	Jul 13, 2019 12:37 AM
A200 series	22	4	Jul 13, 2019 12:37 AM
A 101 Floor Plans	5	0	Jul 13, 2019 12:37 AM
Qualcomm 50% CDs - Furniture PL...	8	0	Jul 13, 2019 12:37 AM
A 250 Sections	3	0	Jul 13, 2019 12:37 AM

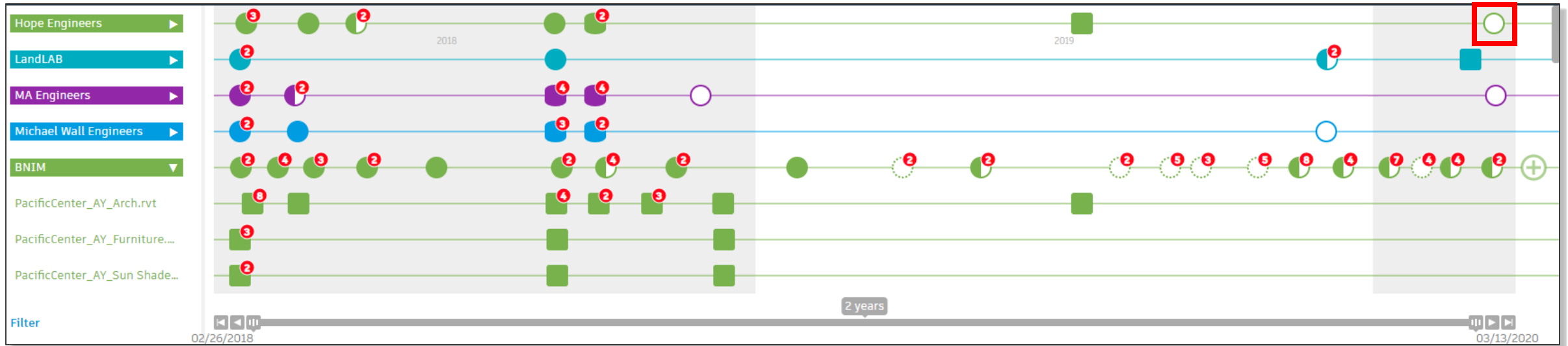
ID	Sub-type	Title	Assigned to
669	Clash	Maybe a stamp	-
668	Design	Issue created in Design...	-
662	Design	Issue created in Design...	-
639	Design	Design issue on sheet -...	William Beyer
619	Design	Design Collaboration is...	-
617	Design	Issue created in Design...	-

Autodesk Design Collaboration



- **Dedicated team lane for an external consultant**
 - Each team gets their own team lane.
 - Each team lane shows when that team has shared a package or published their Revit model to ACC.
 - Icons dynamically change fill depending on the team viewing the information.

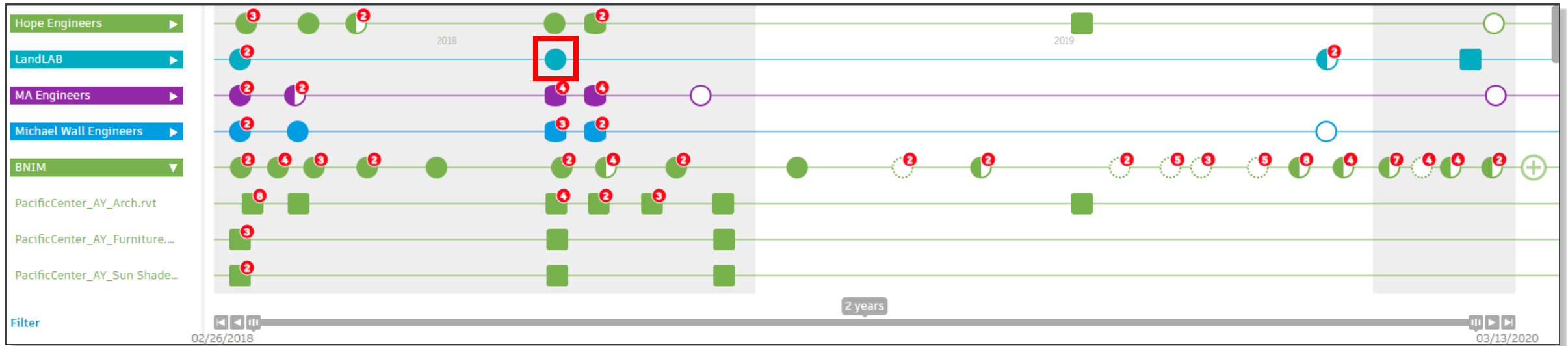
Autodesk Design Collaboration



- **Team lane icon overview:**

- An empty circle on another team's lane represents a package that has been shared, but not consumed by your team

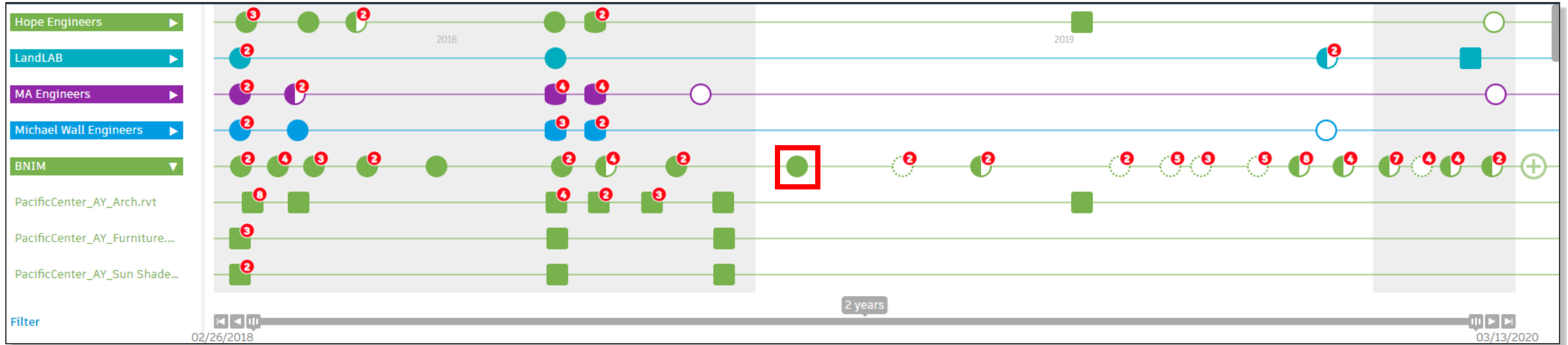
Autodesk Design Collaboration



- **Team lane icon overview:**

- A filled circle on another team's lane represents a consumed package

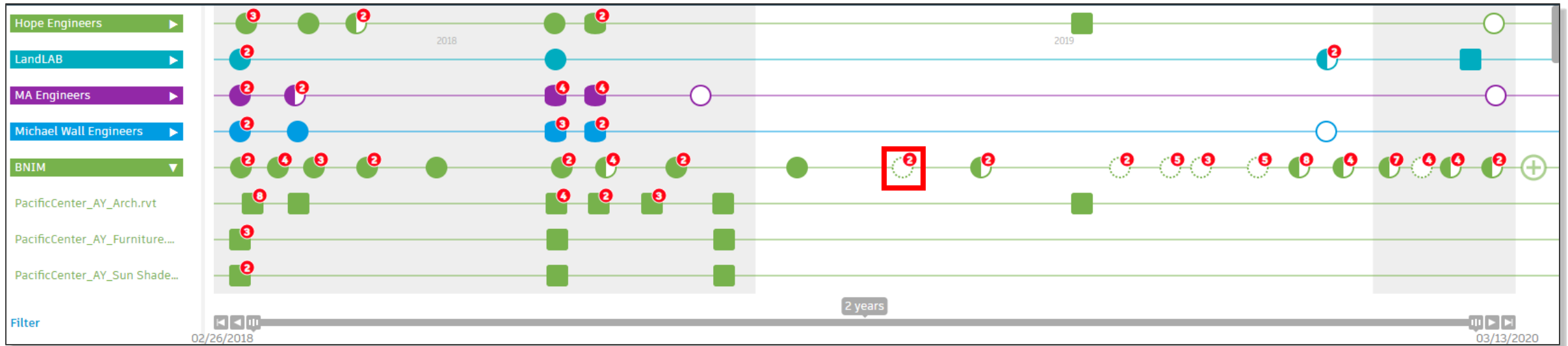
Autodesk Design Collaboration



- **Team lane icon overview:**

- A filled circle on your team's lane represents a package you have shared

Autodesk Design Collaboration



■ Team lane icon overview:

- A dotted-line circle on your team's line represents the start of a new package that you haven't shared yet

Connected Data Makes for Better Data

Autodesk Build - Assets

- Model Based Workflow

Assets

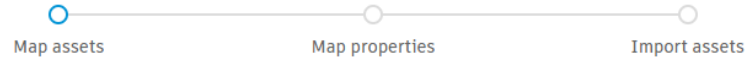
Assets				
+ Create asset		Export (26)		Search...
<input type="checkbox"/>	Name	Category	Status	Linked r...
<input type="checkbox"/>	Doors_ExtDbL_Flush [311505]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [311566]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [311622]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [313434]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [313460]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [313504]	Doors	Unspecified	1 reference
<input type="checkbox"/>	Doors_ExtDbL_Flush [314404]	Doors	Unspecified	1 reference

AUTODESK Construction Cloud

LIN

Map assets from PRECAST_FLOOR_M3_0001.rvt

×



Map assets from model to asset categories

Define the model import rules for each asset category

Asset category	Model assets	
> Airfield	Map assets	⋮
Doors	Map assets	⋮
> HVAC System	Map assets	⋮
> Mechanical	Map assets	⋮
> Precast Concrete	Map assets	⋮
> Pumps	Map assets	⋮
Roofing	Map assets	⋮
Rooms	Map assets	⋮
> Units	Map assets	⋮
Windows	Map assets	⋮
Zone	Map assets	⋮

- Map Revit Parameters

Next to mapping properties

Update Status on Site - Barcode

The screenshot displays a software interface for managing site data. On the left, a 3D model of a radiator is shown in a perspective view. The radiator is a long, dark grey rectangular object with a series of smaller rectangular fins along its length. A small, light-colored rectangular object is attached to the side of the radiator, labeled 'BACK'. The background is a light grey gradient. On the right, a details panel for the selected radiator is visible. The panel has a title 'Radiator - Hydronic Fin Tube [319442]' and a close button. Below the title are three tabs: 'Details', 'References', and 'Activity log'. A 'Delete' button is located below the tabs. The details section includes fields for Name, Description, Status, Category, Location, Barcode, and Models, each with an edit icon. The 'Status' field is currently set to 'Specified'. The 'Models' field contains the text 'BAGGAGE_HALL_ARCH.rvt'. At the top right of the interface, the user's name 'Jonathan REINHARDT' is displayed next to a profile icon.

Jonathan REINHARDT

Radiator - Hydronic Fin Tube [319442]

Details References Activity log

Delete

Name
Radiator - Hydronic Fin Tube [319442]

Description
Unspecified

Status
Specified

Category
HVAC System

Location
Unspecified

Barcode
Unspecified

Models
BAGGAGE_HALL_ARCH.rvt

Autodesk Build – Use References

- Link Checklists (Forms) for Assets
- Link RFI's
- Link Cost Variations
- Link Quality Issues

Jonathan REINHARDT



DOOR A01-FD60

Details **References** Activity log

Forms

- Door Installation #31**
23 Aug 2022 | Submitted
- Precast Wall Panel #75**
21 Nov 2022 | Submitted


Photos

- 
166117-15857385
- 
Finesse-1-1-400x400-1

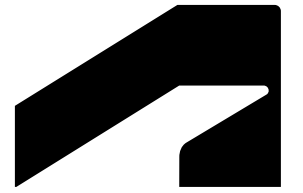
Schedule activities

- #10 - Review & Finalize Plans**
0% | 02/06/2008 - 20/06/2008 | 15 days
b4ubuild_sample_08ACONS
↳ Document Review & Revision

Sheets

-  **S-1.0**
V1 ST
Plans and Elevations

Submittals



Thank You...