Snohomish County Records Center
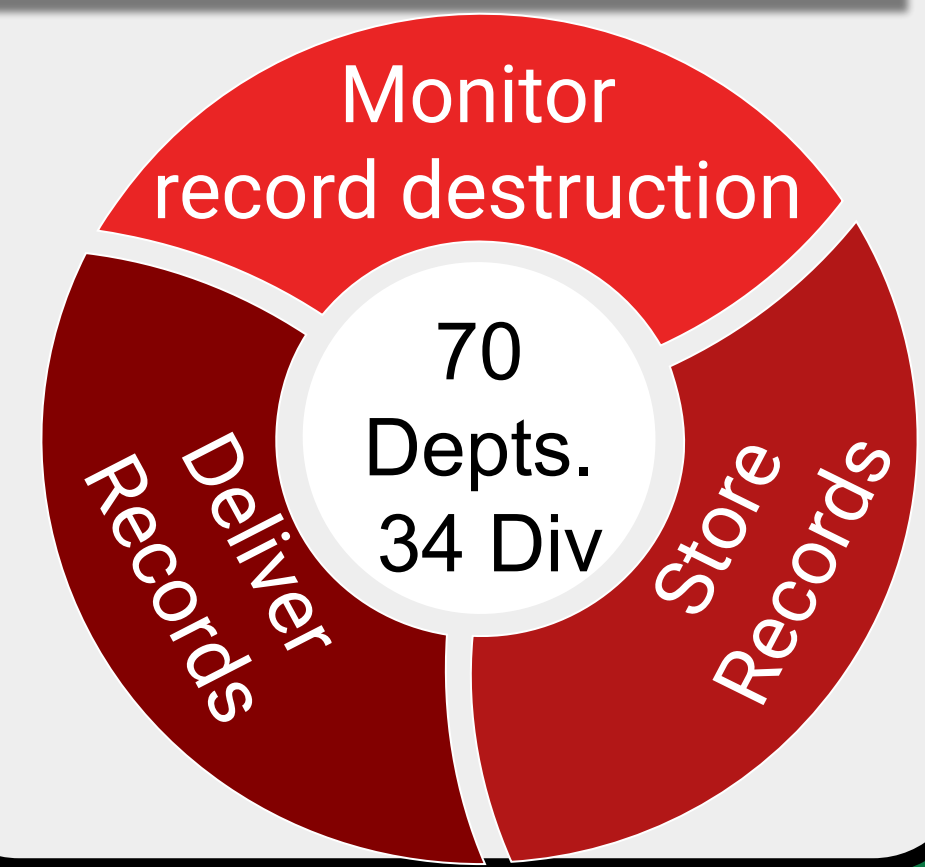
The Record Keepers: Luke Barnes, Emma Cozart, Kristen Leierzapf, Kaitlin Parker, Molly Jo Sevigny

Records Center Functions

Monitor record destruction · Deliver Records · Store Records · 70 Depts. 34 Div

Expected Impact

Reduce risk of moving boxes from upper shelves		
Standardize box placement across Records Facility		
Increase workflow efficiency and client accountability		
Standardize and modernize Records Center processes		

Problem

How can physical safety and workflow efficiency be improved while addressing weaknesses caused by disparate tracking systems?

Deliverables

Equipment · Probabilistic Putaway · Sustainable Model · EasyVista Requirements · and Process Maps
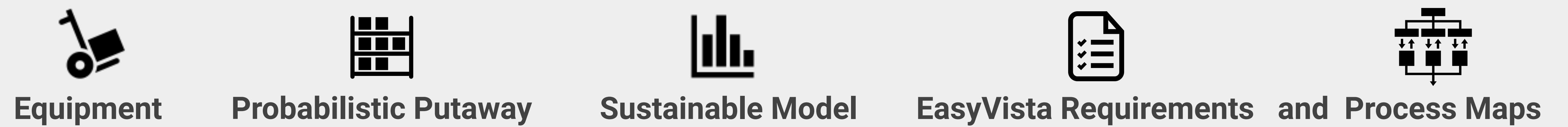
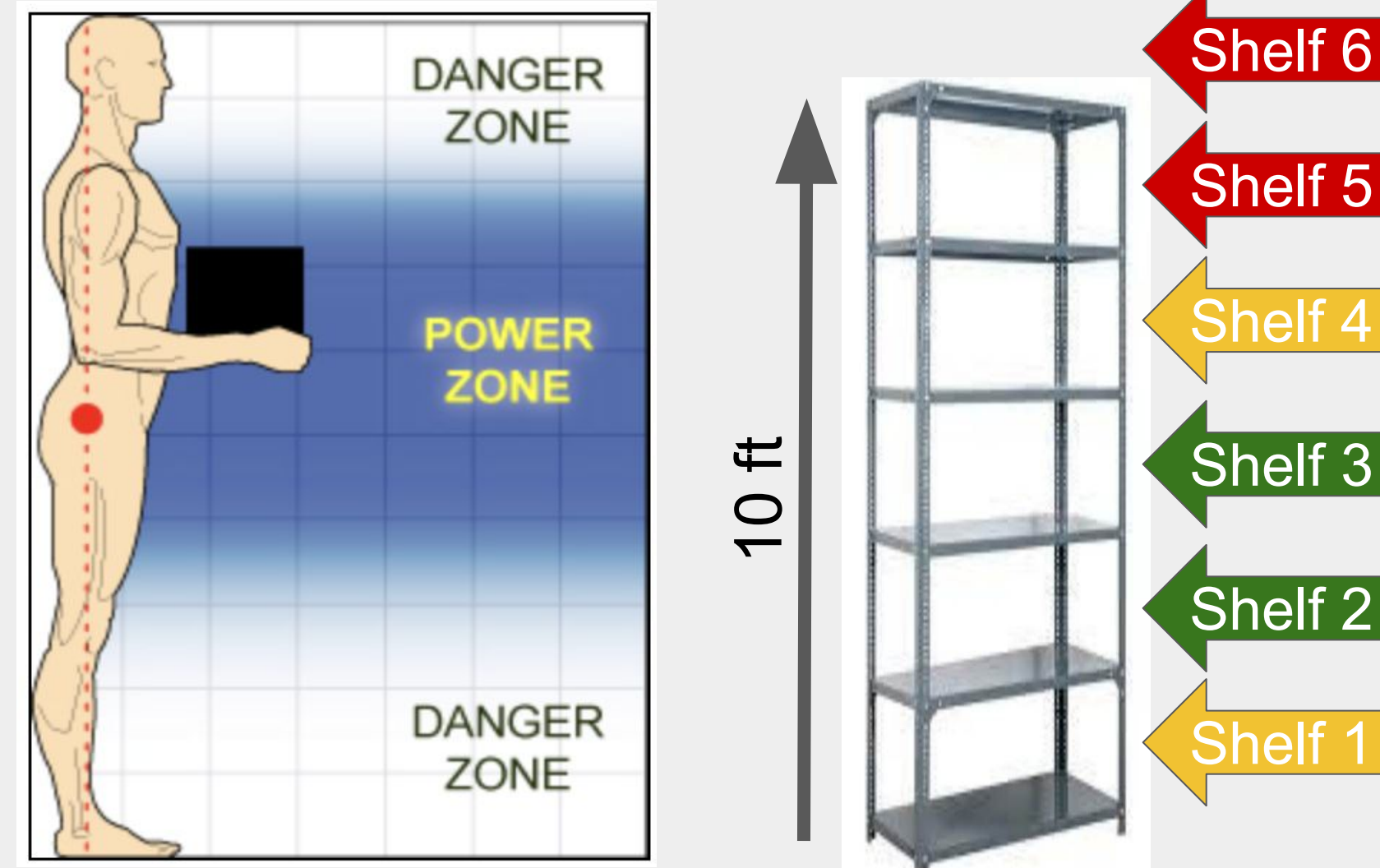## Equipment

Initial State:
- Shelves are 10 ft tall
- Smallest aisle is 3 feet wide
- Box dimensions: 12 in W 10 in H 15.5 in L
- Boxes weigh up to 40 lbs
- Est. 3 boxes on shelf at once

DANGER ZONE · POWER ZONE · DANGER ZONE · 10 ft · Shelf 6 · Shelf 5 · Shelf 4 · Shelf 3 · Shelf 2 · Shelf 1

Solution:
Ballymore Order Picker
- Platform Height: 13" lowered / 71" max. raised
- **25"L x 17"W shelf**
- Overall Footprint: 30"W x 46"L
- Easy roll 6" casters
- Meets OSHA requirements

Probabilistic Putaway and Sustainability

Initial State: Boxes placed onto shelves via employee intuition with no standardized process.

Solution: Developed a putaway model in Excel by forecasting the number of times each box would be referenced per department.

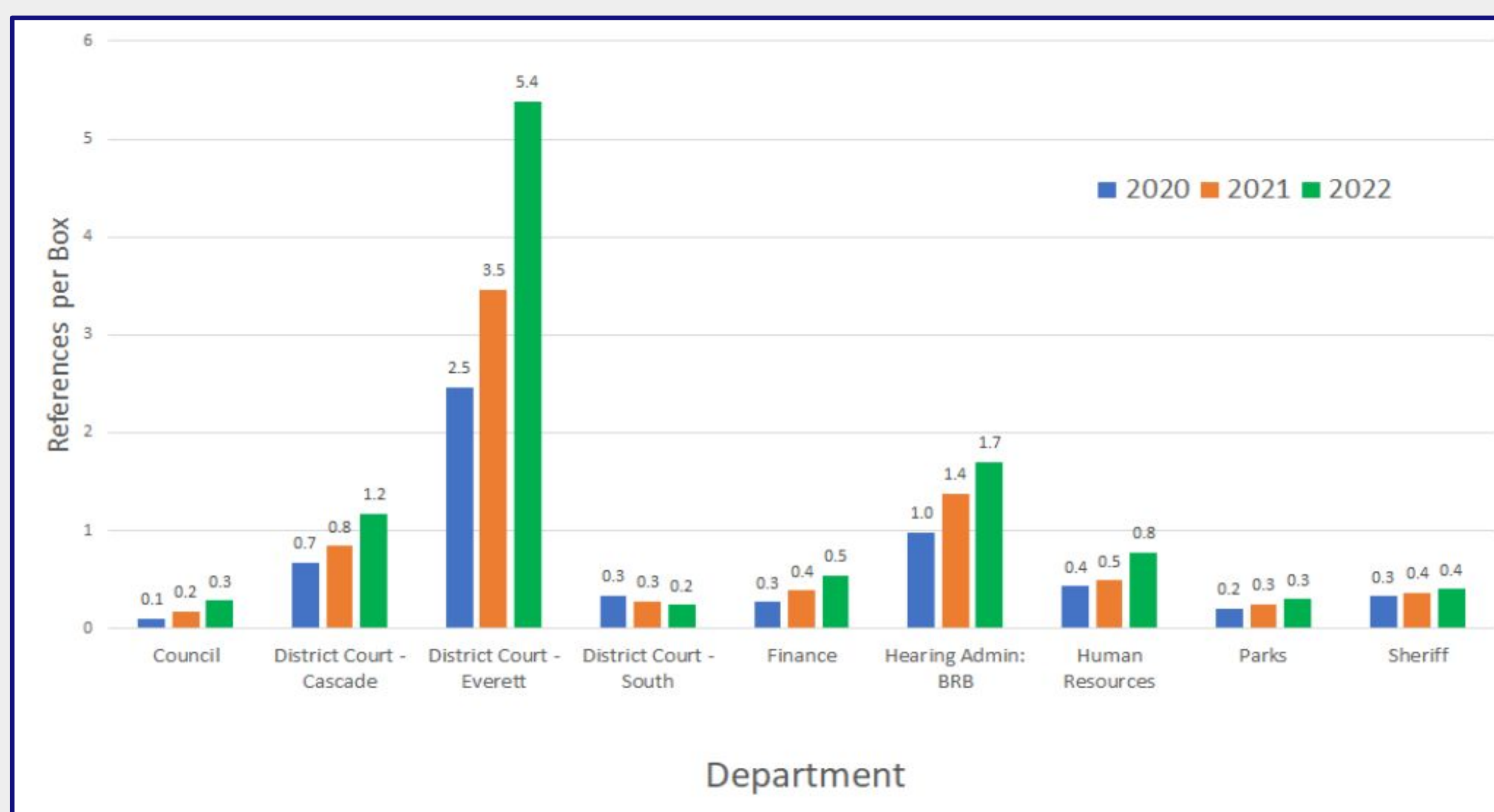Used Exponential Smoothing with a Trend to develop model:

$$F(t) = \alpha A(t)+(1-\alpha)(F(t-1)+T(t-1))$$
$$T(t)=\beta\,(F(t)-F(t-1))+(1-\beta)\,T(t-1)$$
$$f(t+\tau) = F(t)+\tau T(t)$$

Optimized alpha and beta per department to minimize MSD
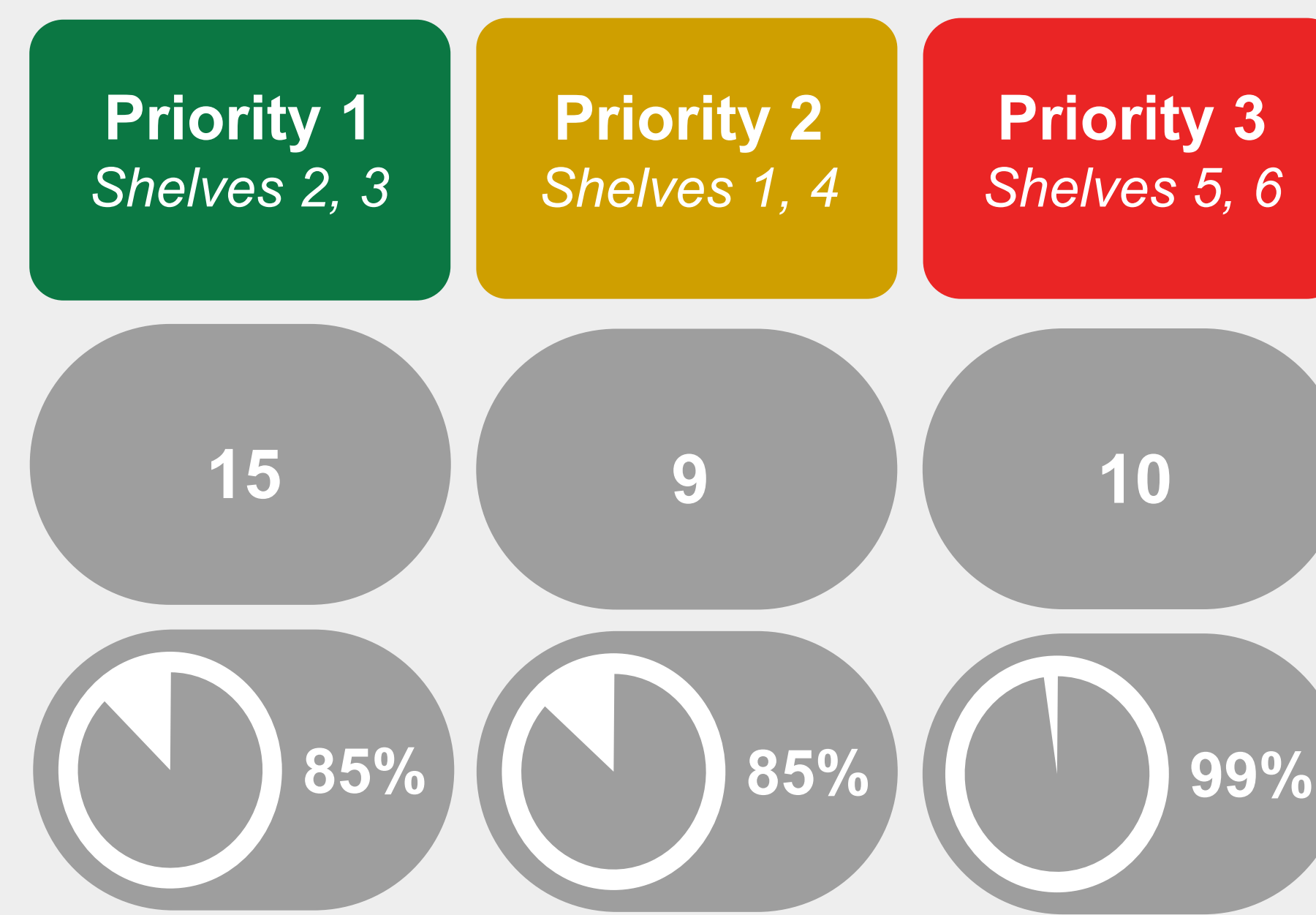
Forecasted Average References per Box, 2020-2022

References are expected to increase dramatically in the next three years for several top departments, most notably the District Courts

Sustainable Putaway Model
- Sorted departments into three priority levels by highest average forecasted references per box
- Allocated spaces with 15% capacity buffer in priority levels 1 and 2
- Accommodates annual updates

Priority 1 *Shelves 2, 3*	Priority 2 *Shelves 1, 4*	Priority 3 *Shelves 5, 6*
# Depts. 15	9	10
Spaces Allocated 85%	85%	99%

Statistics showcasing the utility of the delivered probabilistic putaway model

Box References by Priority

Boxes Checked-in per Priority Level (2019)

Priority 3 27% · Priority 1 37% · Priority 2 36%
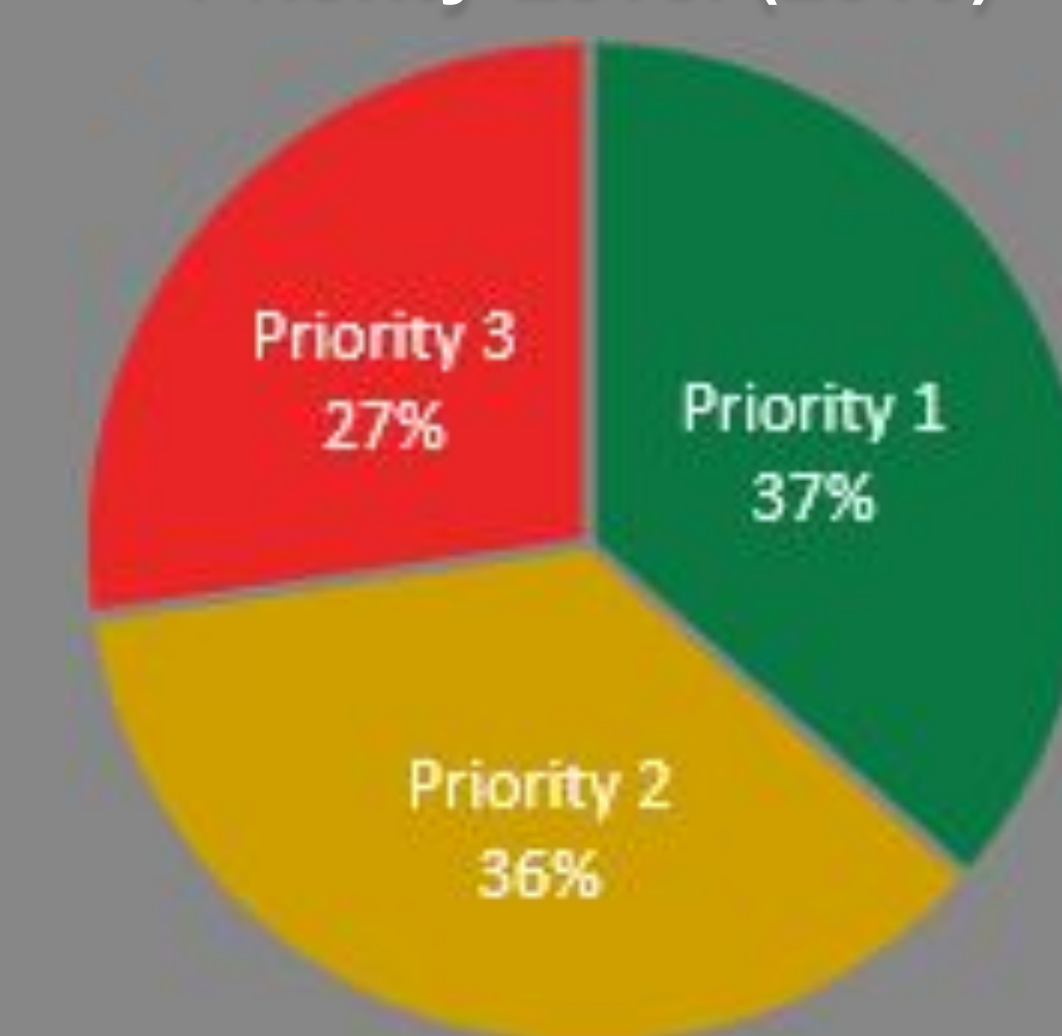
Forecasted References per Priority Level (2020-2025)

Priority 2 9% · Priority 3 1% · Priority 1 90%
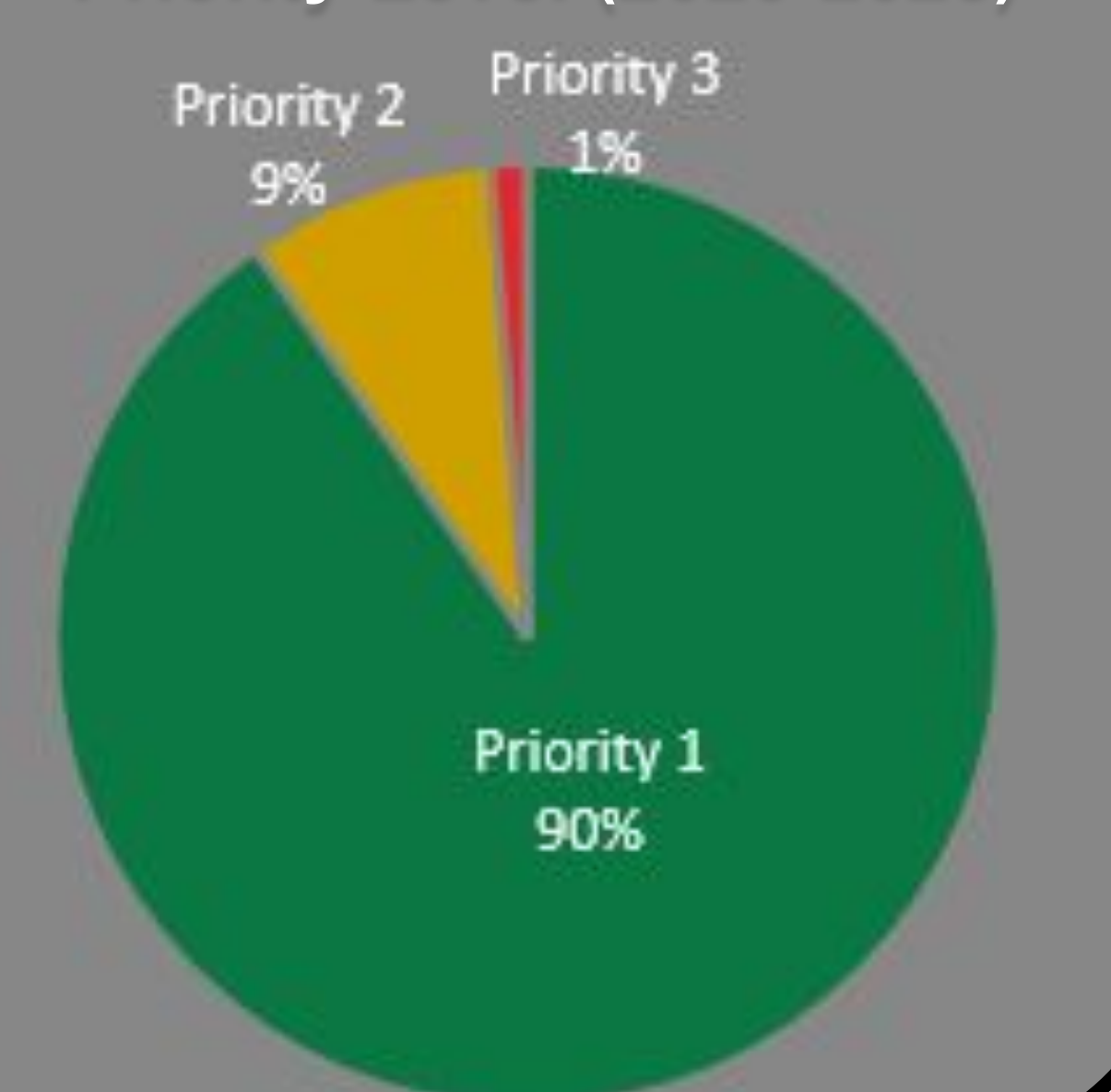
Model Benefits:
- Can be ran at the click of a button
- Uses VBA and Solver
- Easy to use
- Forecasts until 2025
- Intuitive
- Simple

Open Model → Insert Reference Data → Insert Inventory Data → Click "Update Model"

EasyVista

What EasyVista is:
Multi-function platform to manage inventory and ticketing
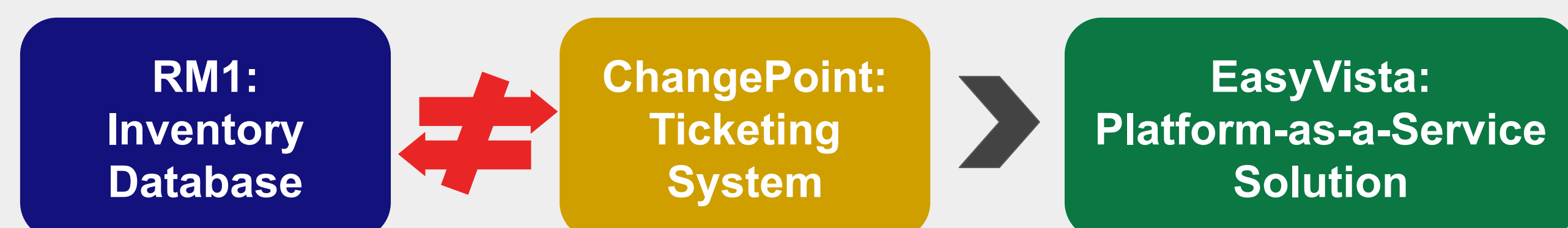
Initial State:
- Inventory and Ticketing systems don't communicate
- Snohomish County signed an agreement with EasyVista in May 2019 to replace their ticketing system with EasyVista's Service Manager
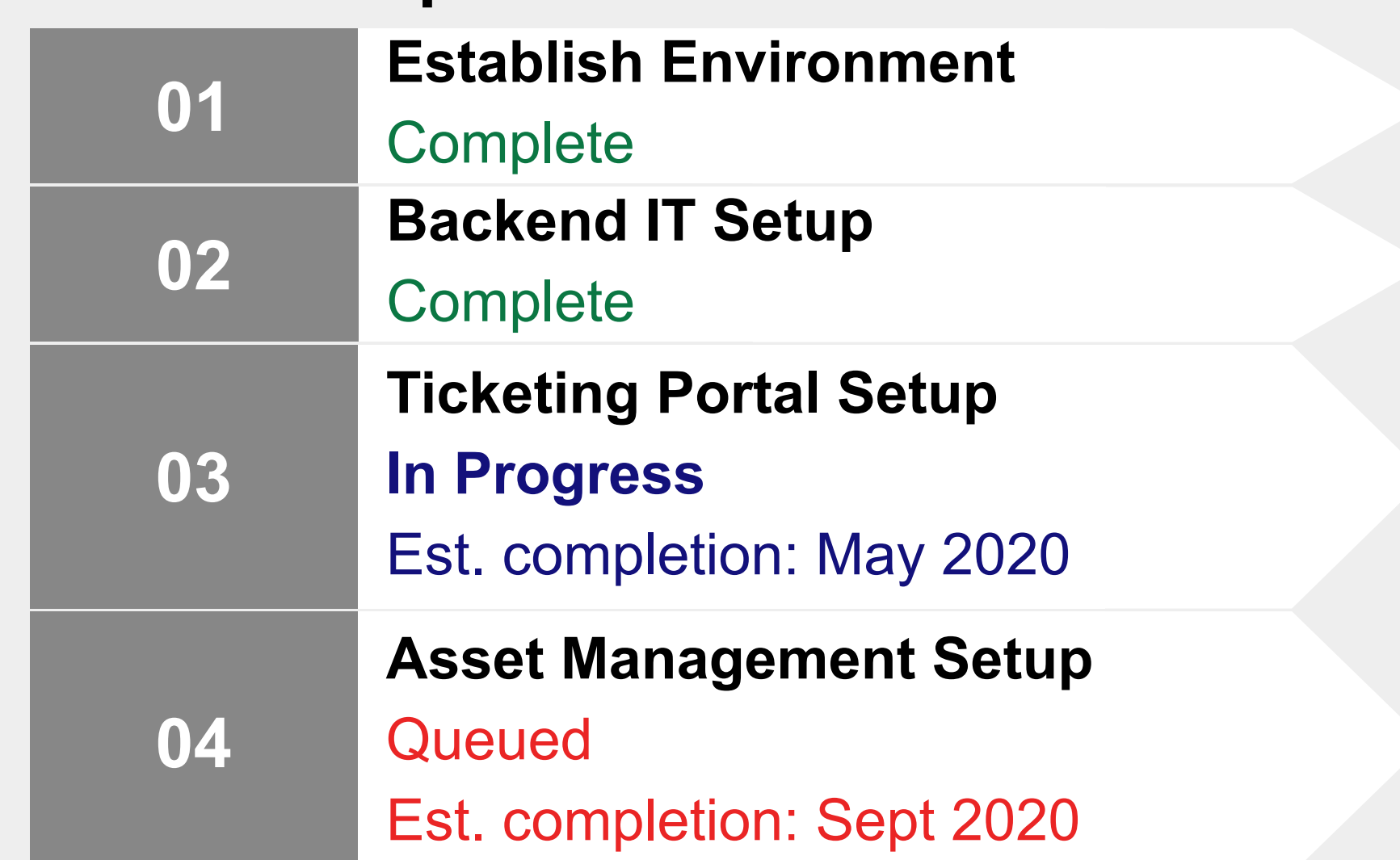
Solution:
- Recommended migration to EasyVista's Asset Management
- Built a requirements list detailing the features of their legacy database that would be necessary in a new solution
- Built process maps that detail how key RC processes will be affected by transitioning to the new software

Initial State → **Ideal State**

RM1: Inventory Database ≠ ChangePoint: Ticketing System → EasyVista: Platform-as-a-Service Solution

EV Implementation Phases

01 Establish Environment — Complete

02 Backend IT Setup — Complete

03 Ticketing Portal Setup — In Progress — Est. completion: May 2020

04 Asset Management Setup — Queued — Est. completion: Sept 2020

Legacy Database Design Manual · 1163 Pages → Legacy Database Requirements List · 5 Pages

INCREASE
- Client Accountability
- On-the-fly reporting capabilities
- Item history tracking
- Communication between ticketing and inventory management platforms

DECREASE
- Manual data entry
- Time spent searching for checked-out boxes
- Time core staff spends managing the platforms

Number of Clicks Analysis

Type of Accession	# Clicks in RM1	Est. # Clicks in EV
Same details as the box before	20.92	7
Similar details, but not the same	49.45	7
Completely different than the box before	90.38	7

Waste analysis that displays the reduced number of clicks required to record box accession information

COVID-19

Stay Home Stay Healthy — Restrictions in effect for safety

Effects:
- Could not visit facility
- Budget cuts for RC & Record Keepers
- Reduced RC & client work hours

Results:
- Creative data collection
- New approach to deliverables
- Frequent, short sponsor meetings