From Invention To Innovation

Practical Tips for Writing an ERC PoC Proposal and Beyond

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Project Overview

- Title: **User Behavior Simulation in Built Environments (USE)**
- Year: **2017-18**
- PI: **Prof. Yehuda E. Kalay**
- University: **Faculty of Architecture & Town Planning at the Technion**
- Research Coordinator: **Dr. Davide Schaumann**
- Team: **3 PhD students, 2 MSc students, Environmental Psychologist, Hospital Administrator, CS and IE students, Business consultant**
- Industry Collaborators: **Autodesk**

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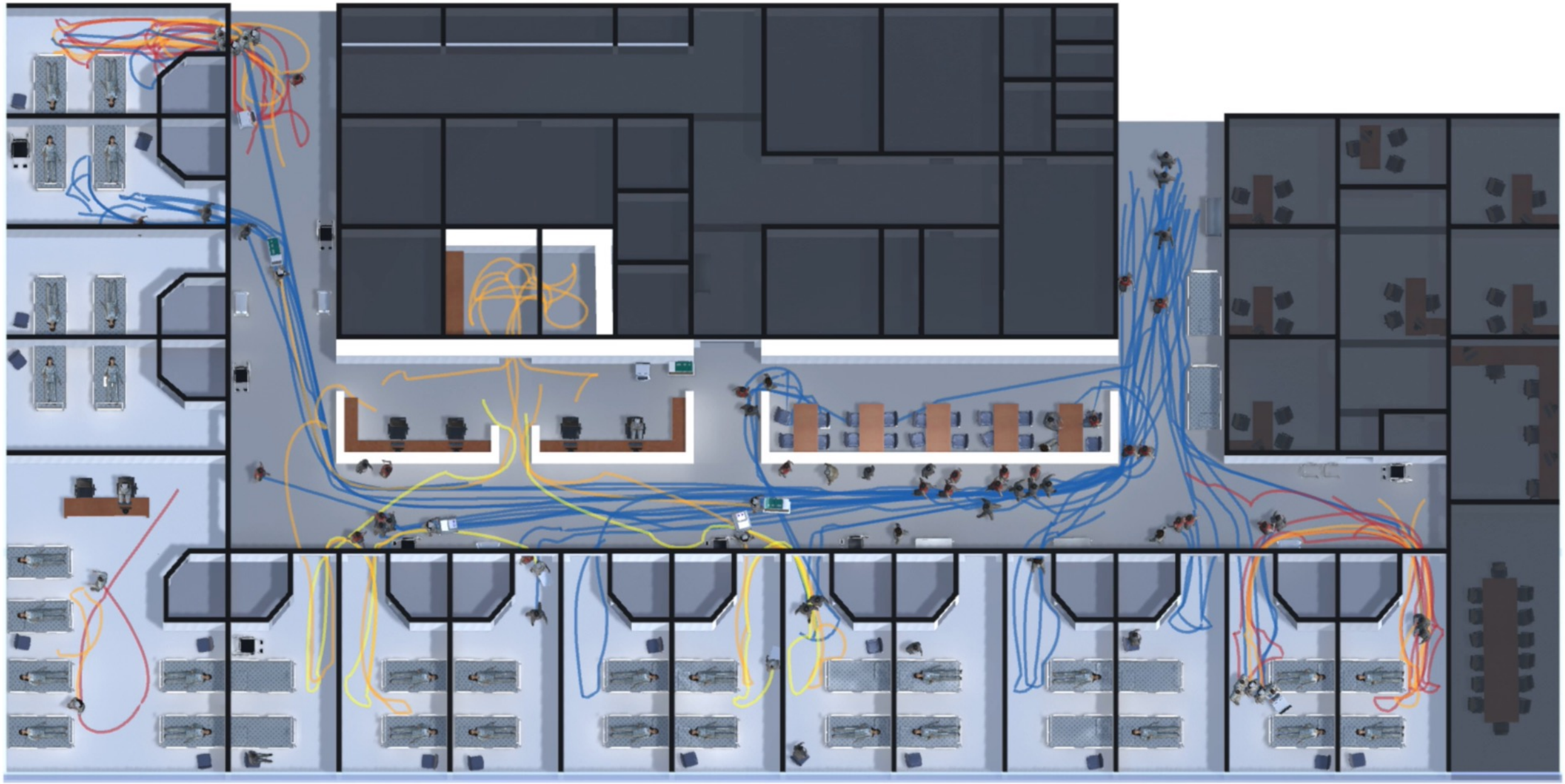

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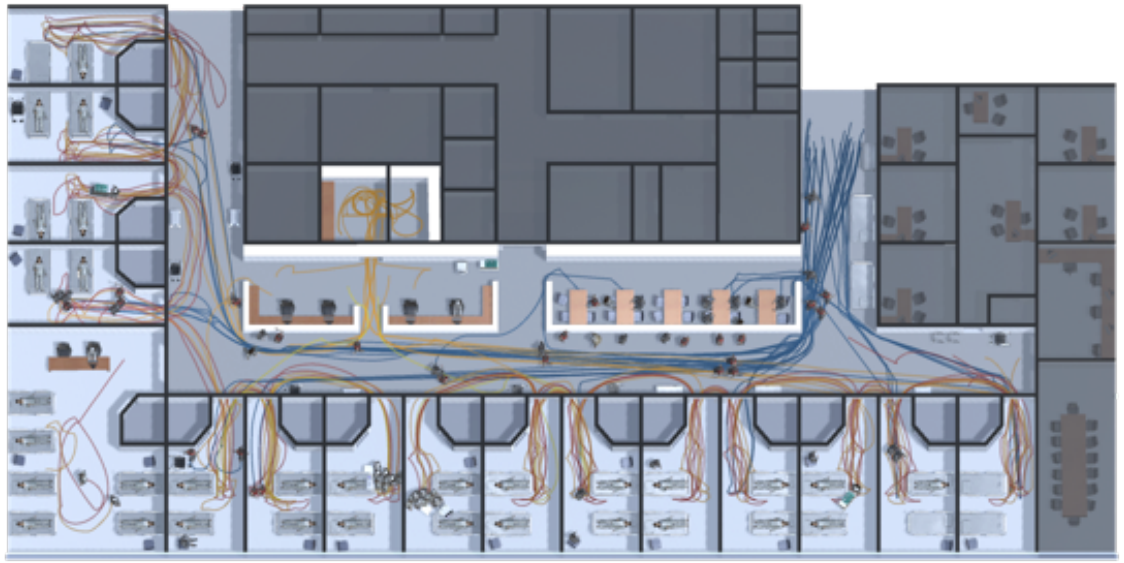
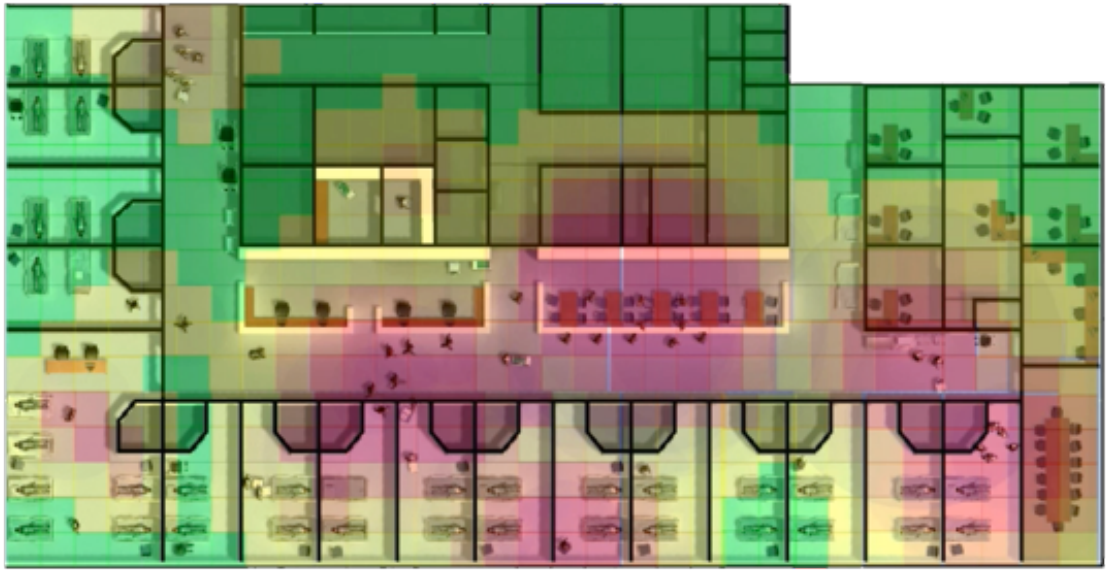
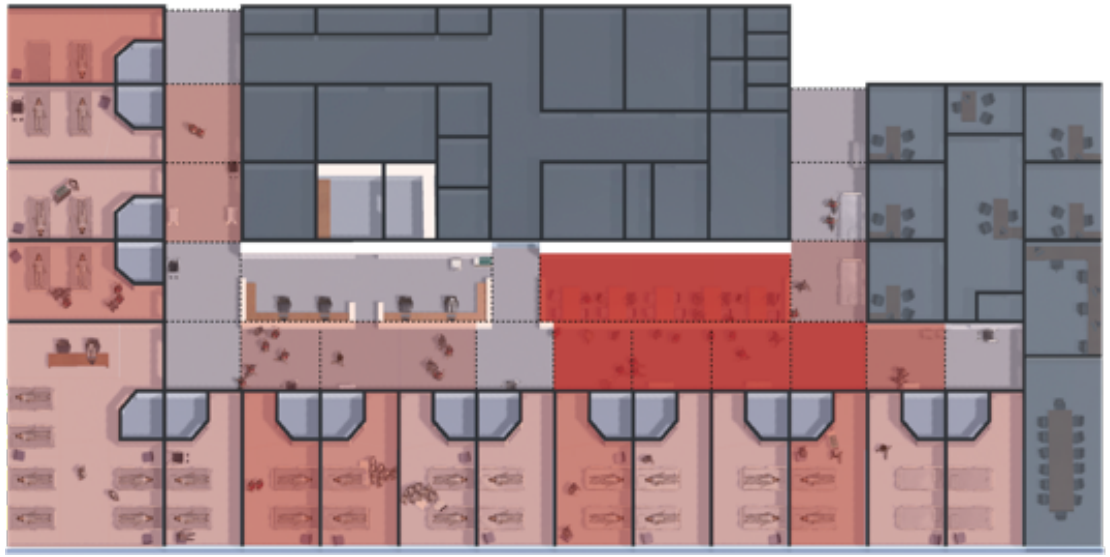


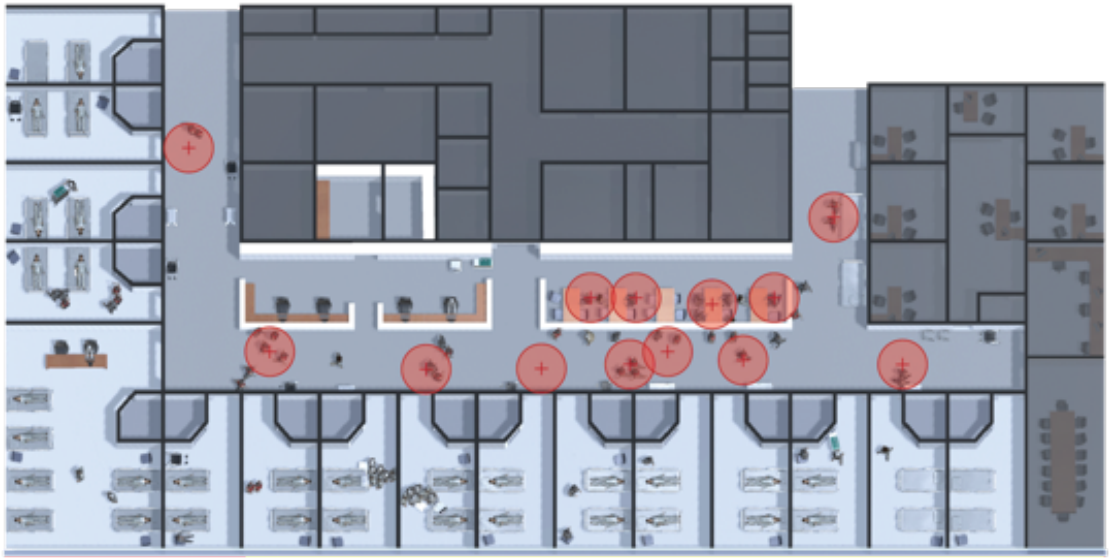
Travelled Paths



Noise



Density



Social Interactions

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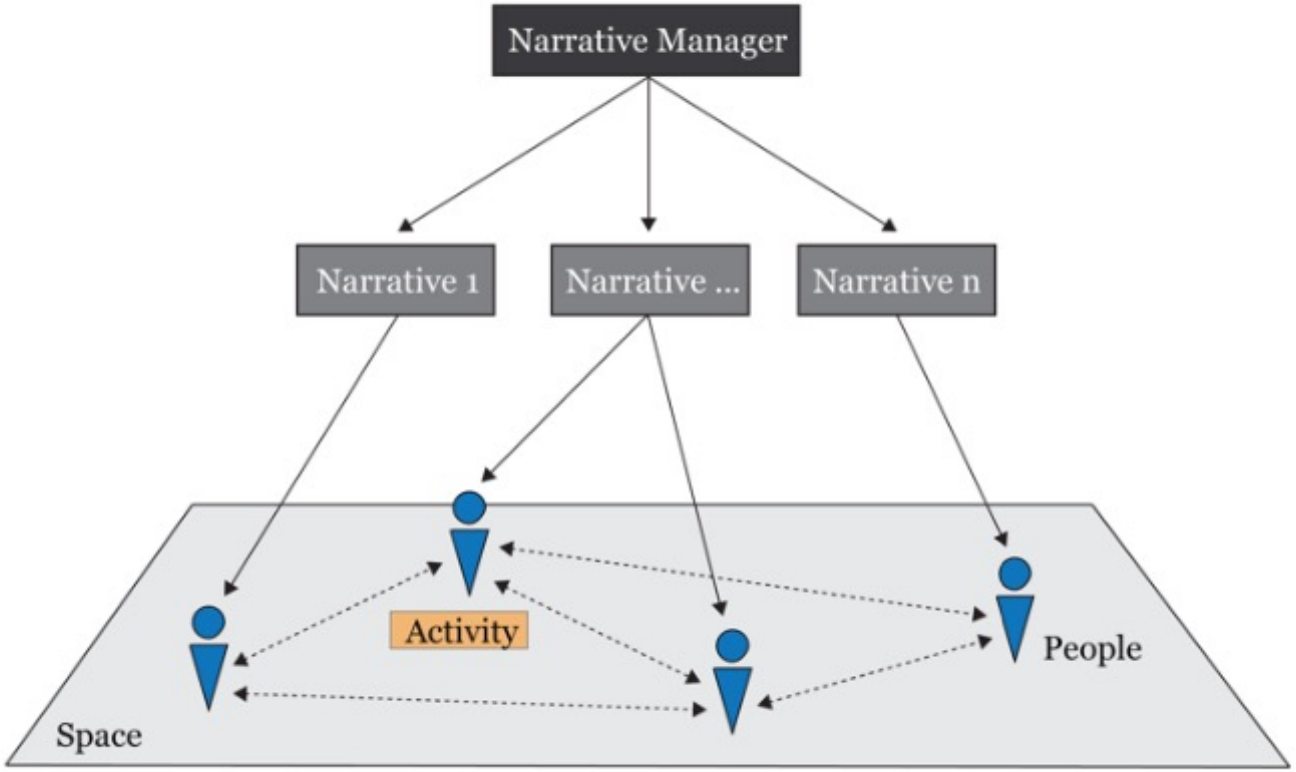
Invention



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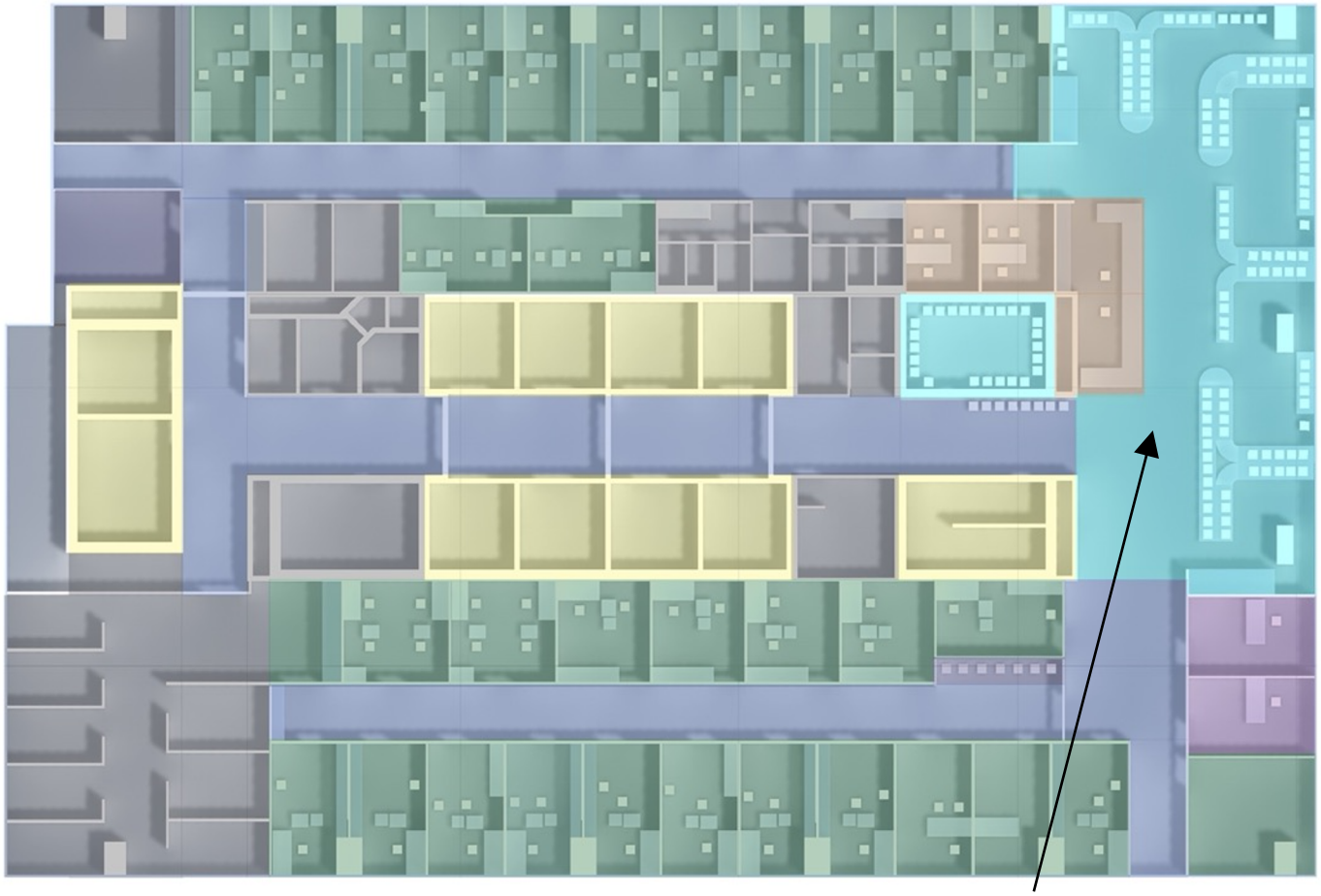
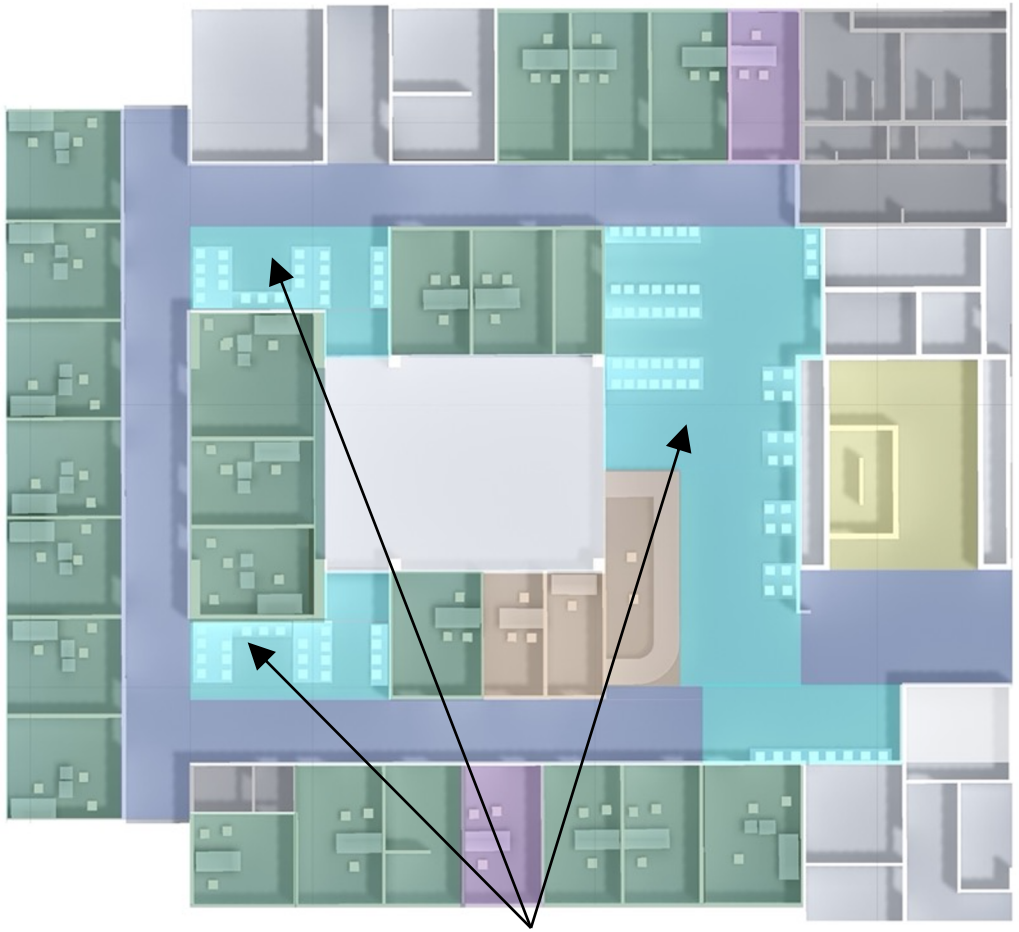
Comparative Evaluation of Architectural Design Alternatives

Rambam Health Care Campus, Ophthalmology unit



Waiting Area

Meir Medical Center, Ophthalmology unit

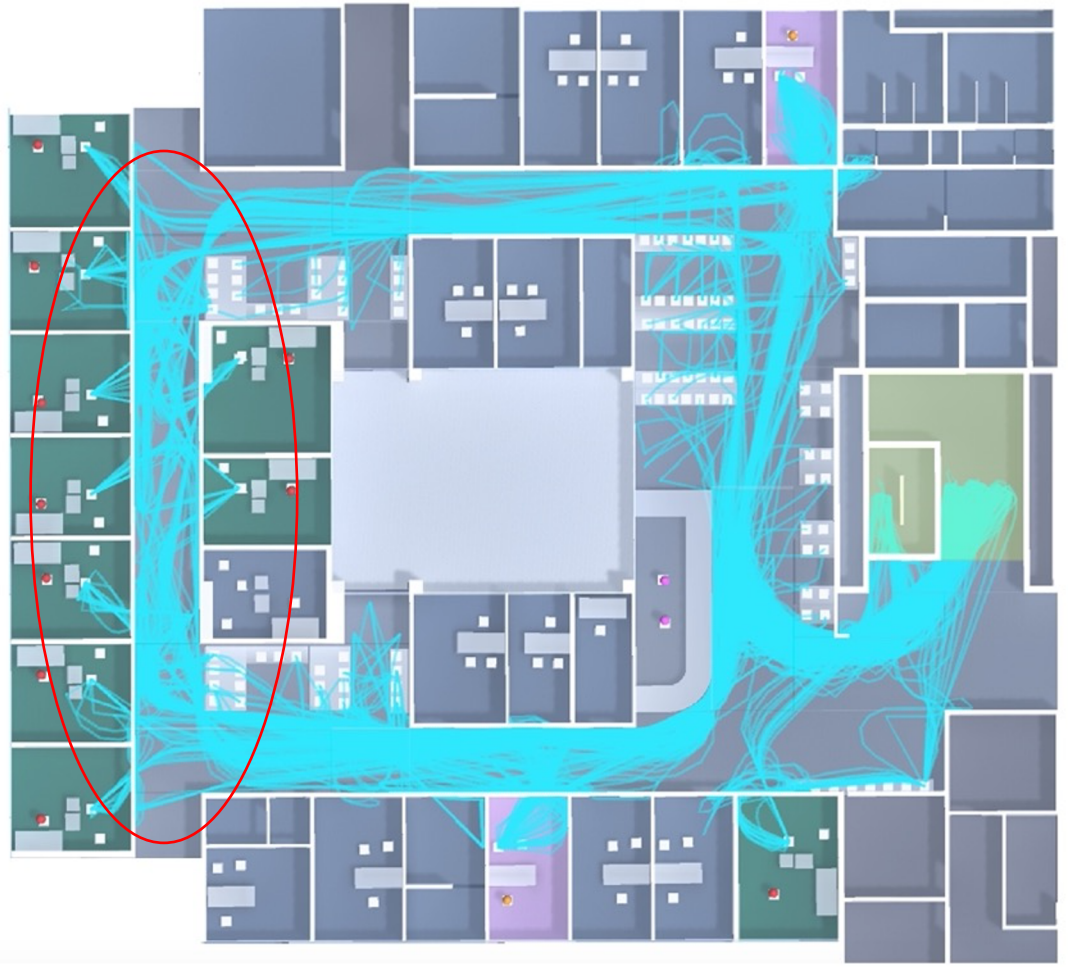


Waiting Area

Patients' Flow

Rambam Health Care Campus

Meir Medical Center



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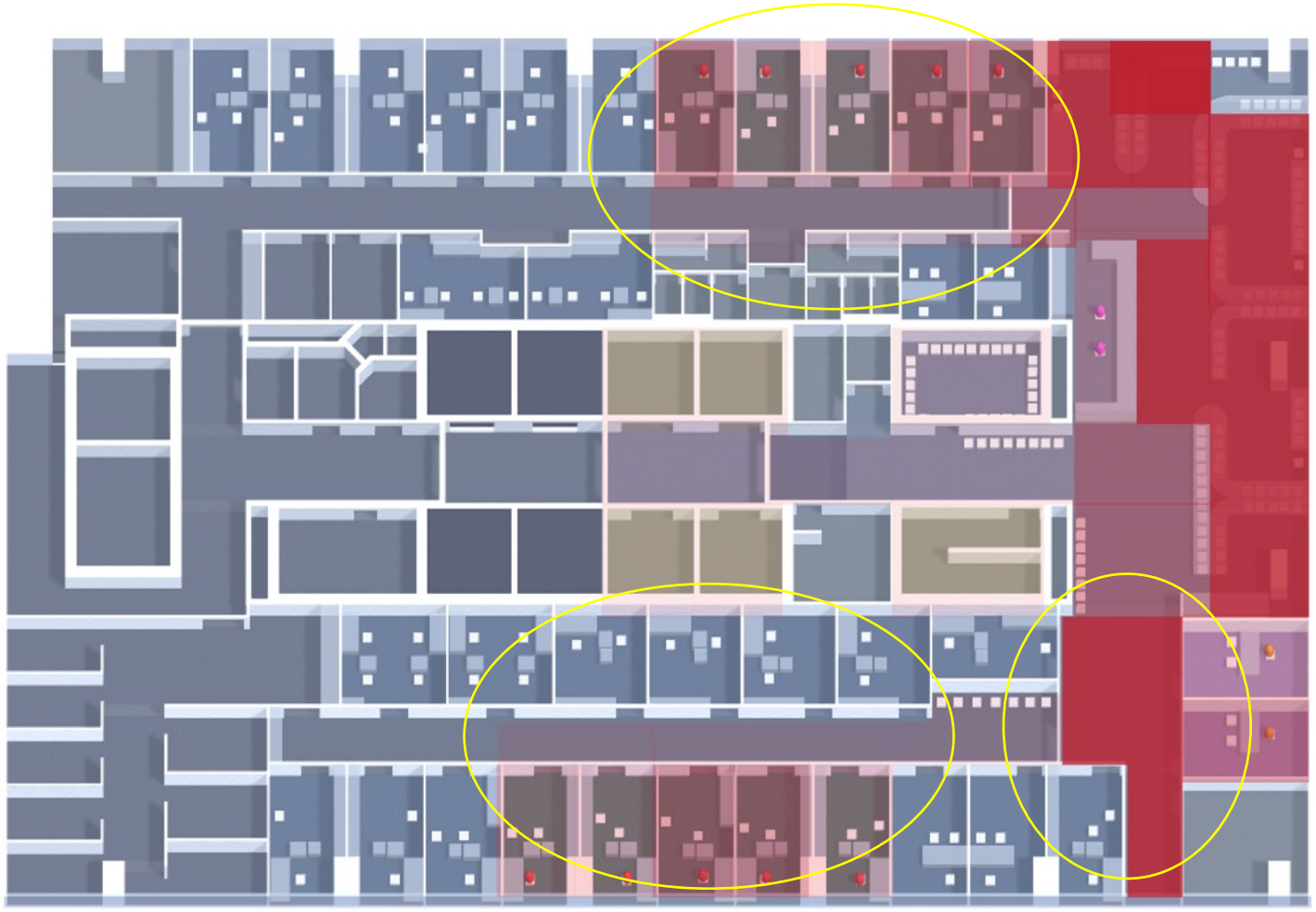
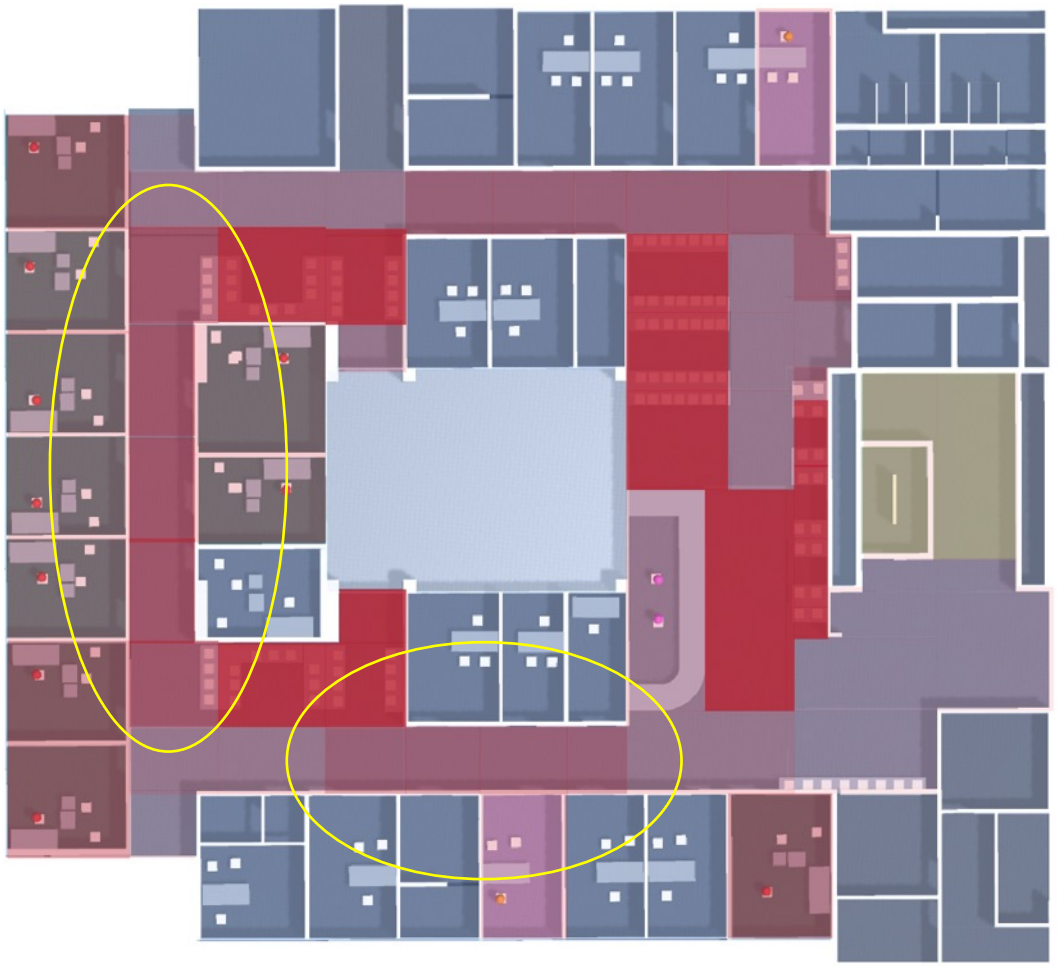
Spatial Bottlenecks

Rambam Health Care Campus



Meir Medical Center



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From an *Academic* to an *Entrepreneurial* Mindset

- The ERC Proof of Concept Grant **bridges the gap** between **research** and early stage of commercial and social **innovation**
- Innovation is the **practical implementation of ideas/invention** that result in the introduction of new goods or services or improvement in offering goods or services
- **Not all inventions lead to innovation** and not all innovations require an invention.
- How can an **Invention** be transformed into an **Innovation?**
  - How can we explore ways to ***capture* the value that an invention *creates*?**

From an *Academic* to an *Entrepreneurial* Mindset

A business creates X value and captures Y% of X

X and Y are independent variables

Peter Thiel – From Zero to One, 2014

D. Schaumann, 2021

From an *Academic* to an *Entrepreneurial* Mindset

- What is the **ecosystem** where value is created?
- Who are the **stakeholders** and what are their motives and incentives?
- How can **economic** and **social value** be created, measured, and **captured**?
- Most importantly, it is a **journey** and not an end-point.

Practical Tips for Writing the Proposal

1 Scope

How does the project meaningfully **advance ERC research**?

How does the project move research one step closer to **commercialization**?

2 Benefits

Who **benefits** from this? How? When? How often?

Who are the **end-users**?

How can **commercial** and **social** benefits be quantified?

Is this solution **10x better** than competitors?

3 Partners

Who are they?

What will be the relationship and **interactions** to test the prototype?

How do you extend the partner **network**?

Practical Tips for Writing the Proposal

4 Team

What are the specific **roles** of the PI and team members?

How can their **skills and connections** benefit the project?

5 Go-to-market

How can **feedback** be collected in an unbiased way?

What is the **actual market** for this product/service?

How will the product/service be commercialized? (e.g., startup, licensing agreement, …)

6 Budget

What are the provisions for **market analysis, IP, and investor engagement**?

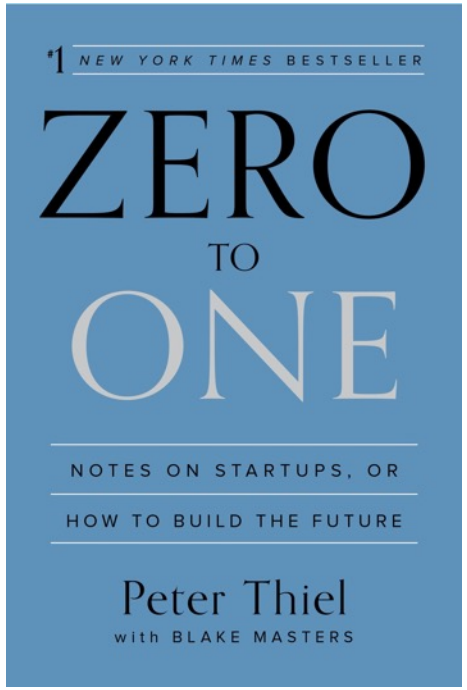
Are **external business advisors** needed? Who are they?

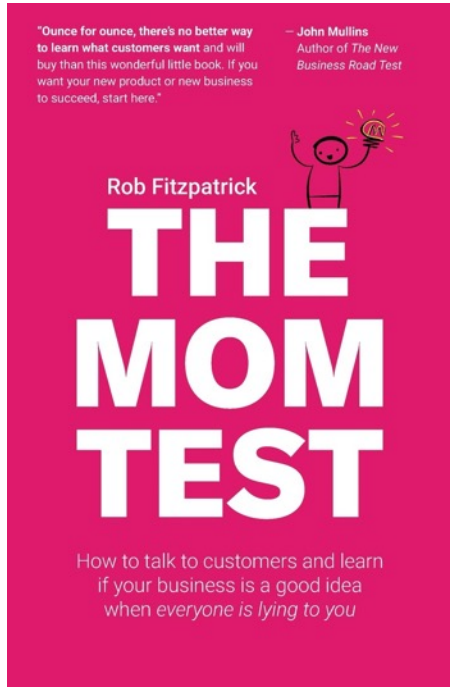
Is **enough budget** allocated to market discovery activities?

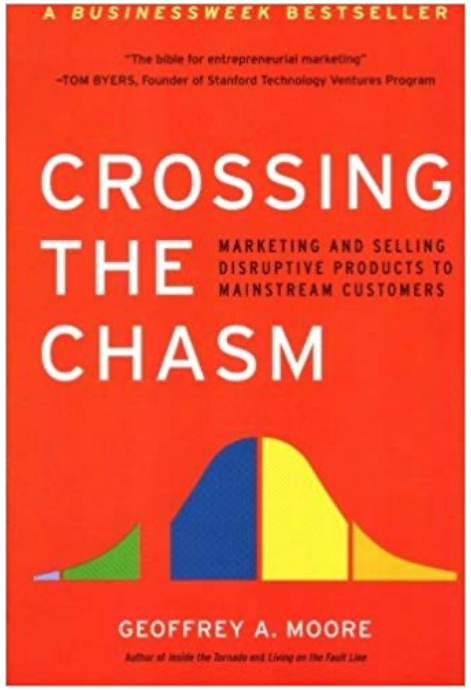
Practical Tips after Winning

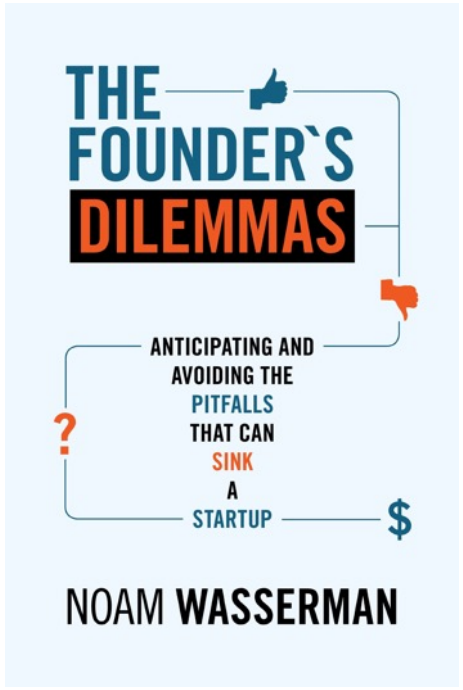
- New business prospect can be **confusing** for the research team
- **IP considerations** should have already been put in place
- How can a team **acquire knowledge and skills** to tackle the business opportunity?
- How can the team **evaluate** new team members with business skills?
- How does this business-oriented endeavor affect **parallel/tangent** research projects?
- Which new **career opportunities** does this grant provides for team members?

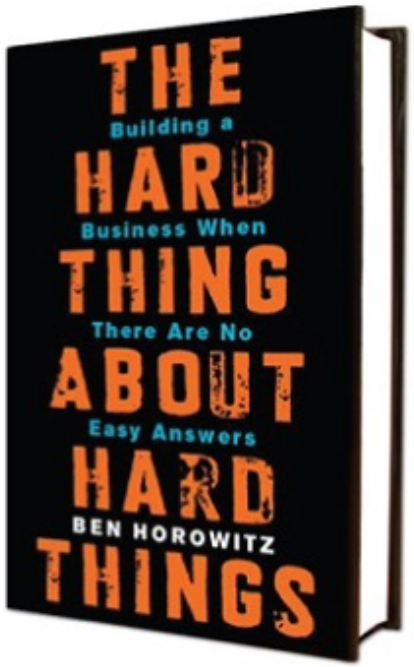
References


#1 NEW YORK TIMES BESTSELLER
ZERO TO ONE
NOTES ON STARTUPS, OR HOW TO BUILD THE FUTURE
Peter Thiel
with BLAKE MASTERS


"Ounce for ounce, there's no better way to learn what customers want and will buy than this wonderful little book. If you want your new product or new business to succeed, start here."
– John Mullins
Author of The New Business Road Test
Rob Fitzpatrick
THE MOM TEST
How to talk to customers and learn if your business is a good idea when everyone is lying to you


A BUSINESSWEEK BESTSELLER
"The bible for entrepreneurial marketing"
–TOM BYERS, Founder of Stanford Technology Ventures Program
CROSSING THE CHASM
MARKETING AND SELLING DISRUPTIVE PRODUCTS TO MAINSTREAM CUSTOMERS
GEOFFREY A. MOORE


THE FOUNDER`S DILEMMAS
ANTICIPATING AND AVOIDING THE PITFALLS THAT CAN SINK A STARTUP
NOAM WASSERMAN


THE HARD THING ABOUT HARD THINGS
Building a Business When There Are No Easy Answers
BEN HOROWITZ

People say you shouldn't ask your mom whether your business is a good idea. That's technically true, but it misses the point. You shouldn't ask *anyone* whether your business is a good idea. At least not in those words. Your mom will lie to you the most (just 'cuz she loves you), but it's a bad question and invites everyone to lie to you at least a little.

It's not anyone else's responsibility to show us the truth. It's our responsibility to find it. We do that by asking good questions.

Rob Fitzpatrick – The Mom Test, 2013

GOOD LUCK!

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