The Weekly Take

The Impossible Dream: How big things get done—and why many projects fail

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Spencer Levy
If you're developing, planning or investing in a major project, if you're even just thinking about a big idea, stop and listen to this program. Whether you build skyscrapers or public works projects or you've got designs on transformational change in any sector of commercial real estate, this conversation may transform your perspective and your approach. On this episode, a professor offers a lesson on how big things get done.

Bent Flyvbjerg
Compared to other sectors of the economy, innovation and technological development has been way too slow in the real estate industry. That's something that I think the industry needs to look at in order to thrive in the future.

Spencer Levy
That's Bent Flyvbjerg, a professor at Oxford University and also at the IT University in Copenhagen. His specialty is economic geography, specifically the economics of cities and regions, which is how he came to write the latest of his ten books: an in-depth study of mega-projects and more. And the title says it all. It's called *How Big Things Get Done: The Surprising Factors that Determine the Fate of Every Project from Home Renovations to Space Exploration and Everything In Between*. Coming up, we turn the pages of Professor Flyvbjerg's book, to learn from his take on history, from select case studies that show what works – and what doesn't. We also find out what commercial real estate can learn from animated movies, an idea he calls "Pixar Planning". How Big Things Get Done! I'm Spencer Levy and that's right now on The Weekly Take.

Spencer Levy
Welcome to The Weekly Take, Professor, thank you for joining the show.

Bent Flyvbjerg
It's my pleasure. Thank you for having me.

Spencer Levy
Let's just start with the very big picture. We're talking to the real estate industry on this call. So the question, how do you get big things done?

Bent Flyvbjerg
You get them done by really knowing what you're doing. And for the real estate industry, I think it's time to think about how do we change things in real estate, and especially in the way real estate is being constructed and the way it's being used. Because compared to other sectors of the economy, innovation and technological development has been way too

slow in the real estate industry and that's something that I think the industry needs to look at in order to thrive in the future. And I also think they need to look at it if they don't want to risk getting disrupted from the outside, which is not a pleasant experience.

Spencer Levy
We'll talk later about that in our conversation about creative destruction in the construction process. But let's talk now just a little bit more narrowly about the book itself, about the various categories that people should be thinking about. You have several chapters in this book; starting with Thinking Slow Acting Fast, The Commitment Fallacy, Thinking Right to Left. Without listing all the chapters of the book, what are some of the biggest ideas that you'd like people to take away from your book, particularly in real estate?

Bent Flyvbjerg
I really think this idea of thinking slow, acting fast is crucial; especially because most projects are done in the exact opposite way. People think fast and then they're forced to act slow because there are so many things they didn't think through that are going to come back and bite them during delivery. That's what you typically see. So we actually say that think slow, act fast is the rhythm of a successful project and think slow doesn't necessarily mean that you have to take years for it, even though some people do that. But it means thatyou have to take sufficient time that you actually really know what it is that you're doing once you start on the expensive part of the project, which is the project delivery.

Spencer Levy
I love the way you frame it because I think so much of getting big things done isn't the physical engineering of a project, but the psychology of teamwork? Is that a fair way to put it?

Bent Flyvbjerg
That's a very fair way to put it. And it's actually a problem that if you look at it historically, doing big projects has grown out of engineering. And engineers don't think a lot about psychology and behavior. They think about things and they're interested in things and not so much in people. That's why they decided to study engineering, is because they're interested in things and that's great. We really need great engineers and they're very good at design and getting stuff designed and built. But there's one thing that is not part of the education and that is understanding human behavior. So that's the new thing we want to bring to the field in this book, is we want to tell the field of project leadership and project management. You've got to look at the behavioral side. If you don't look at the behavioral side, you're never going to be able to do projects successfully.

Spencer Levy
Is getting big things done a process of getting the team all to be psychologically together or a heavy hand from the top that makes people do it? Do you have a point of view on that, Bent?

Bent Flyvbjerg
Well you can do both, and it's very easy. Both exist in the real world. So you can study them in action. And I think Robert Moses is probably the mega-project builder who has built the most mega-projects for one individual in the world. There might be some in China that is now matching it. I'm not sure about that, but certainly outside of China nobody has built more megaprojects than Robert Moses. He did it in a very autocratic way. He was the autocrat at the top of this planning system, actually several planning systems in New York City and the New York region. He would just bulldoze through neighborhoods and he got

away with it for decades. Only towards the end of his career – he actually wanted to bulldoze through Greenwich Village in Manhattan and put a road right through there. But a famous urban planner, urban thinker happened to live there, Jane Jacobs, another very famous American. And she decided to organize against Moses against his projects and she succeeded. And it turned out – this was in the sixties – by that time, his way of doing things was just over, historically. And you can't do it that way anymore unless you live in China or another autocracy.

Spencer Levy
And you have a little chapter in this book about that – I think you call it The Chinese Experiment; about how a different form of government is able to get big things done while sometimes NIMBYism, which you also mentioned in this book, about being an impediment to project – maybe too much democracy is an impediment? Is there some middle ground? How do you get it done under either form of government.

Bent Flyvbjerg
So you can get it done on either form of government and it's happening. Obviously, I'm a subscriber to democracy, living in a democracy and wouldn't want that we will get the ways of autocracy of doing big projects. But in a democratic kind of society, it really boils down to good stakeholder management. You need to take everybody into account because in today's society, you cannot bulldoze over neighborhoods and community groups and so on the way Moses did. So you need to take them into account. And we have very good examples of this. You know, there are good ways of doing it and there are bad ways of doing it. And you can't always please everybody. And that's what you need to explain to people. There might be people here who will not be happy with the project, but here's what we can do for you anyway, and here's what we're going to do for whatever the affected stakeholder groups are. And here's how we can help you. Here's how you can help us and so on. That's the kind of dialog you need to have, and you need to take the initiative from the very beginning, not wait. We have a heuristic in the book that we call “Make friends and keep them friendly”. This is actually the secret to make it work in a democracy. You need to build bridges, social bridges, to stakeholder groups and you need to do it early on. As we also say, it's too late to build your bridges when you need them. They need to be built beforehand. So you need to think proactively about this when you are planning a project. You need to think who are the important stakeholder groups? How do we involve them? You need to actually have people hired in project staff whose job it is to manage the stakeholder relationships. It's really important.

Spencer Levy
So let's do a little compare and contrast here of projects that worked and projects that didn't. And let's just talk about why. One of the great projects that I often point to is the Empire State Building, which is a chapter in your book, talking about how that got done in record time under budget. Quite a remarkable feat and then you have on the other end of the spectrum, this is not me knocking, it is just in the book - talking about the California high speed rail. Why did the Empire State Building work and why is high speed rail sort of on the sidelines?

Bent Flyvbjerg
The Empire State Building worked because it was incredibly well organized by people who knew what they were doing. And they had actually already built a skyscraper similar to – not a lot of people know this, but there's actually a shorter version of the Empire State Building built somewhere else for the Reynolds Tobacco Company. So the same architects had designed that and used the experience from that to design the Empire State Building.

And one thing that his practice had learned was that you really need to be prepared in detail. So for the Empire State Building the last night and boards to put the building together, it was pre-defined and designed and had been produced before they started construction. So that's one thing. The other thing was that they decided to use what we call a modular form. So they actually put it in a very catchy way. They said, “We didn't build a 100-plus story building. We built the same story 100 plus times and then we just put them on top of each other.” So they actually build the same story over and over again with slight variations. As you go up, you can see the building changes a bit, but it's a very basic truth that they actually built the same story over and over. And this means that you get something that we in the book called Positive Learning Curves. It means that every time you do something, you can do it a bit better the next time because you learned from it and you can do it a bit cheaper. So you become more and more effective. And that's why it's such a great trick actually, to build big projects like that. You build big projects by building a lot of smaller projects. So in this case, 100-plus stories turns into a 100-plus skyscraper, by building the same story over and over. And the speed of building those stories went up as they went along. So they were building faster and faster and better and better quality, cheaper and cheaper. That's why this is actually an incredible feat. They delivered 17% under budget. That almost never happens. And they built on time. So on time and on budget. As we show in the book, only eight and a half percent of projects achieve that. So only eight and a half percent achieve on time and on budget. And the Empire State Building is one of those projects, very successful projects.

Spencer Levy
And then you compare that on the other end. And again, this is not to knock, it is just a fact. The California high speed rail project, which doesn't seem to be getting a whole lot of traction. What is the fundamental flaw in that project?

Bent Flyvbjerg
They've done the exact opposite of what they did with the Empire State Building, that they haven't planned it properly, upfront. So they really thought slow on the Empire State Building. Not meaning that they took years to think about it, they just took the time that was needed in order to think through the skyscraper. On the California high speed rail project, they haven't done that. And now it turns out that they're winding the project down as they go along, not even building off of it, moneywise. They're going to end up building only the stretch in the Central Valley from Merced to Bakersfield. And I don't think anybody, if you had come up with that as the original idea, saying we're going to build a high speed rail line in California between Bakersfield and Merced – I mean, I don't think anybody would have approved it. I don't think the California voters who approved this project would have approved it if it had been described the way that it now is actually going to turn out and it's going to be postponed into some distant future, whether this part that they built is ever going to get connected to Los Angeles and San Francisco, which was the whole point, you know, was to connect LA and San Francisco. As we write in the book, we think that this is going to go down in history as really one of the examples of how not to do epic projects.

Spencer Levy
Being a little bit more narrow for the real estate industry. What's the role of things like a public-private partnership?

Bent Flyvbjerg
So public-private partnerships are fine as long as they're done right. And that's really the crucial matter here. So there are lots of public private partnerships. Some are done well, some are not done well, and that's really what matters, how they are done. So it's a good

idea if you have a good set up, if you write a good contract that is regulating the relationship between the public policy and the private parties, that's crucial. Often the contracts are not good and that creates problems. But if you get all those things right, then public-private partnerships are fine. But of course, that's not the whole story. There's also the story about all the other stakeholders, like people, anybody who's affected in a major way by the projects that you are doing needs to be considered in one way or the other. So that's what we call stakeholder management or stakeholder collaboration, and that's also something to pay attention to that in the book we call it Make Friends and Keep Them Friendly. That's sort of the social aspect and sometimes political aspect of delivering projects. And it's really important. But that's actually a thing that I think that the real estate sector gets pretty well and probably better than a lot of other sectors; that the real estate sector has a way of thinking about projects as social and political and not only technical, it's not just about construction and engineering, obviously.

Spencer Levy
Tactically speaking, say you're starting a new project. What are the considerations to do upfront considering the fact that planning takes time? What are some of the effective ways to implement or manage what you would call “Pixar Planning”?

Bent Flyvbjerg
So the two things that you need to have in place upfront is that you have to have a realistic business case. So you need to know what it is that you're doing and you need to know whether you actually have the money. So that means you have to have a realistic budget and you wouldn't believe how often that is violated. So that's one thing: realistic business case. Then the second thing is an effective delivery team. Those are the two lakes that you need to stand on. Once you have these things, then the question becomes developing your plan. And this is the thinking slow phase. And this is where Pixar is so good at. They typically spend two years before they even start shooting a film; Two years in development where they experiment and they do trial and error. They iterate the film and they spend those two years doing more and more sophisticated versions of the film. They simulate the film before they do it, in order to be sure that they know what they're doing when they start using the expensive equipment, when they start hiring the expensive actors to do voice overs, when they start hiring the expensive composers to do the score, etc. So that they assure that they don't waste money during that phase and that's one reason that Pixar is so successful. They really have that process down by doing it over and over and over again, not just within the single film, but also between films. Pixar is using this approach of iterating, iterating, iterating and getting better and better at what they're doing. And it's a huge success. As we all know, no other Hollywood studio has done 20-plus blockbusters in a row.

Spencer Levy
One of the things you mentioned in your book is Stories, Not Stats. What it means, and I think you described it far better than I do, is if you really want to persuade somebody, you're not going to persuade him or her with a spreadsheet. You're going to persuade them with the concept. So they feel it in addition to thinking it. What's your point of view, Bent?

Bent Flyvbjerg
So in the book, we decided that we would never lose sight of a specific example and a specific story. That's why you have – I counted them, actually, after the book came out. I didn't before, but after that came out, I counted that we have 99 different examples of the things that we are talking about here in the book, each with a little story, sometimes a long

story, a full chapter, and sometimes popping up again in later chapters. So I think that in a sense, to answer your question, we really think storytelling is important. And if you want to persuade the reader that something is worth doing or is interesting to know about, you need to have good stories about it. We don't stop there, however, because we want a scholarly base for what we are saying. You know, I am a professor at Oxford and The IT University in Copenhagen, so part of my job is to make sure that what we are saying holds up to scholarly standards, and for that we need data. So in addition to the stories, we also have actually the world's largest database on project performance – 16,000-plus projects are the basis for this book – where we can test all sorts of ideas on the data, including this thing that I call the Iron Law of Project Management, which is in short, it is over budget over time on the benefits over and over again. And like I said before, 8.5% of projects are on time and on budget. But if you require that projects must be on time, on budget and deliver the promised benefits then is only one half of a percent 0.5%. Can you believe it? I mean, it's a stunning number and this gives our arguments power, you know, that we can actually document things quantitatively, statistically with the kind of data that we have. So it's not only the stories, it's stories plus dates, it is persuasion. In my book.

Spencer Levy
I'm turning now to page 173 of your book, and I'm looking at your chart. You don't have to open up your book as you wrote it, but you list the different projects that have the greatest chance of success and then those that are underperforming. So at the top of the list of those that are Thin Tail Risk, to use your terminology, you have solar, wind, power, roadwork, and then you have as the bottom, the Fat-Tail Risk, to use your terminology, nuclear power, Olympics, and nuclear storage. So those are two ends of the spectrum. Why don't you tell our audience about those two ends of the spectrum of the types of project - and by the way, building is somewhere in the middle, which is our business. But tell us about the both end of the spectrum, why they are different?

Bent Flyvbjerg
Yeah, and this has never been done before. It's actually the first time that this pattern is shown anywhere is in this book. We can see 25 different project types and we can see which project types perform well and which project types perform poorly, and not only somewhat poorly, like poorly at the level of really blowing up in your face in an extreme manner. Like you said, solar farms actually, and wind farms and pipelines and electricity transmission and so on. They are at the good end of the scale, they're quite predictable and you don't have big surprises, big budget blow outs and big delays and so on at that end of the scale and we explain this by saying these are modular projects, these are actually projects that you build by building big from small units. So think about a solar panel. It's built modular. It's built on the basis of solar cells, right? The solar cells is what we call a Lego. You know, I'm Danish and I love the toy Lego, which is a Danish toy that we all grew up with as kids, you know. And the Lego is a good metaphor here. It's a basic building block. If you look at a wind farm, the basic Lego, the basic building block is the solar cell. Then you put a lot of solar cells on a panel, then you have a solar panel. Then you put a lot of panels in an array, then you put a lot of arrays together and you can build a solar farm however big you want, a huge solar farm. And that is actually happening all over the world today. This is one of the ways we are doing the energy transition it’s very efficient. That's very lucky for us and it's very efficient and it's going well. It's getting cheaper and cheaper and faster and faster because it's modular. Same for wind farms, same for anything actually, you can build it this way. It doesn't have to be energy. It can be anything. At the other end of the scale, you have the projects that are blowing up in your face and they are typically projects that are bespoke, so they are unique. There's only one of these, like when you build a nuclear power plant, even though the nuclear industry has

really tried to standardize nuclear power plants, they have not succeeded. It's still all sorts of bespoke work that has to be done on site, not in factories. So you actually have a construction site. It takes forever. It's not uncommon to take 10, 15 years to build a nuclear power plant or to give them up. As has happened recently in the United States. Only four nuclear reactors have been under construction in the US over the past few years. Two of them have been given up upon and the last two are being completed at huge cost overruns and huge delays. Same in Europe. That's the problem with nuclear. Same with the Olympics. It's one of the worst prototypes you can find. We describe it in the book. Huge cost overruns. Obviously no delays because you have to open on the opening date and so on. Nuclear waste storage – even worse. I.T. projects – really bad. They have really fat tails, meaning that they really blow up in your face in an extreme manner on the cost and schedule side. And again, it's because these projects tend to be done in a nonstandard bespoke manner and they tend to take a long time. That's what you want to avoid. So if you want to be successful, it's actually quite simple, if you think about it. If you want to be successful, you've got to be modular and fast. If you want to set yourself up for failure, you do something that is bespoke and slow. That's the answer. And the way to get around this is you need to start your project with asking, “What's our Lego?” So what's our basic building block? If you don't have a basic building block, it means you have a problem because it means you are on your way into a bespoke project and that's not going to go well.

Spencer Levy
Well Bent, I would say that the area within our business, which I'm sure you're well aware of, Bent, that we're having challenges at the moment is in the office building sector. And I think part of that challenge, not all of it, certainly because there's other major issues involved may have to do with the unique nature of each office building and they are unique in their local and in their design. By contrast, you go to the other end of the spectrum and you look at the typical industrial project. While automation is on the rise and the interior has clearly evolved over time, the exterior looks very similar to what it looked like 50 years ago, and they're all in similar outline locations and cities. Does that explain some of the challenges we're having in the office sector today, in your opinion?

Bent Flyvbjerg
Yeah, it does, but I do not agree that it has to be like that. So you're describing it's as if this is the nature of office buildings, that each office building is different. They're unique. You use the word unique. I actually usually say when I hear, on a project team, hear somebody say, “Our project is unique” I'm recommending the people in charge fire that person or send them to Oxford for retraining. Those are the two options because we have documented that people who think their projects are unique underperform so their projects don't perform well. And that's easy to understand because if you think your project is unique, you don't have anything to learn from other projects, right? If you're unique, you’re different from other projects or you don't have anything to learn. Now that's a recipe for disaster. So the problem is that people think about their projects as unique, and there's nothing about office buildings that dictate that they have to be unique. Not at all.

Spencer Levy
What are the most important takeaways for the building industry with your ideas?

Bent Flyvbjerg
You need to go modular. But there's the problem that a lot of people, when they hear modular, they associate it with low quality. Because historically modular buildings were built low quality, and that's a problem. So we have that reputation to struggle with. To

counter that, let me mention that Apple's headquarters was built as modular. They even talked about them as Legos, completely independently of what we do. Tim Cook was giving interviews, talking about the parts that make up the Apple headquarters, $5.5 billion building designed by the best architects. And you know that nothing would get past Steve Jobs and Jony Ive and Norman Foster, who was the British architect. So those are the three people who designed the building. They have incredibly high standards. And so very high quality but still modular. And that's the way we need to go. We need to build high quality, both the build quality but also esthetically. And it can be done and be modular at the same time. So that's one point. And we spin it out in the book, you know, how you do that? We give examples. We worked with Frank Gehry, the famous Canadian-American architect who works out of Los Angeles. And we picked his brain of how he does this. And he's even beyond modularity, because once you get your computers to work that you can make computer aided design and computer aided manufacturing, you have total freedom in your design and you don't need to use the traditional building methods anymore. That's the road forwards. Musk is another example. When he had to build the first Gigafactory – Gigafactory one it was called at the time, now it's called Giga Nevada, the first factory for building batteries for the electric vehicles that Tesla would be building. He asked the conventional building industry how much it would cost and how long it would take them. He was told five-plus billion and it would take five years. And at that time Musk was not the rich guy that he is today. He was actually really cash poor and he needed cash in order to scale Tesla at the speed that he needed to in order to have the impact on the world that he wanted. So he said, go away. I can't wait five years to get to my cash flow. I need to get to my cash flow within a year. I'm going to do to construction what I've already done to rockets, what I've already done to cars. I'm going to reinvent the process of how we build. And he did it. He actually built 21 small factories that would fit together like Legos into the big factory, which was a factory with the biggest footprint in the whole world of any building at the time. So this is seriously big stuff that we are talking about here. But the idea is exactly right in building the big stuff from smaller modules and this is what the building industry needs to do in order to be successful. They need to get rid of this idea that every building is bespoke and you just design a brand new building from scratch every time you do a building. That's a bad habit and we need to get rid of it. One of my prime thoughts is here that we actually need to get completely rid of the construction side as a concept. We should have assembly sites where we build the Legos, or the parts of the building in factories, and then we bring them on site and assemble them. It's already being used in lots of sectors. We need to bring it into the construction sector without compromising on quality and aesthetics.

Spencer Levy
So I think the primary impediment to modular construction, in addition to the aesthetic considerations, is that people are concerned it would take away construction jobs at the site level. And that's why you have local objection to modular. Any thoughts on how you overcome that?

Bent Flyvbjerg
Yeah, but wait a minute. I mean, if you have that attitude, all that's going to happen is that you're going to be disrupted from the outside. That's the way people who were doing printing in the old days would think. You know, like we can't have this new printing technology because if we get it, our jobs are going to disappear. So let's prevent this. And how did that go? Not very well. So my advice to the construction industry is that you got to get in there and you've got to disrupt yourself. So you need to develop these new technologies. And of course, you need to make sure that there are jobs for people. But if you look at it, that hasn't been a big problem so far in all this new technology that is being

developed. It's actually not that we are losing jobs. The types of jobs are changing, for sure. An auto worker in 20 years from now is going to be a completely different creature from an auto worker 20 years before now, right? So that's 40 years and you'll have the whole transformation from the internal combustion engine to electric vehicles. And that redefines the job. It doesn't mean that you don't need people to build the electric vehicles. It's just going to be people with different skills. So what the construction industry needs to do is to reinvent itself, think about how they're doing things, and they need to make sure that they also have retraining for people who need new skill sets. That's what every other industry is doing.

Spencer Levy
I'm going to pull the lens out for a moment, right back to your title, and I'm going to take it from a different angle. And the angle I want to take it from is beauty, is esthetics. How do we merge the two ideas of beauty, aesthetics and getting things done?

Bent Flyvbjerg
Yeah, and I think this is incredibly important and beauty is incredibly important. I don't want – I wouldn't want to do any of this if it meant that the element of beauty in our lives would be diminished. And that's why we chose the example of the Guggenheim Museum in Bilbao as a story in the book. This is an exquisite building, definitely at the level esthetically of the Sydney Opera House. Actually, those two buildings are often considered together as the two most prominent buildings of the last 100 years, and one of them was a complete disaster regarding project delivery. That's the Sydney Opera House, and it's an opera house that you can't even perform opera in. Because the acoustics are so bad that they don't make for opera. Whereas the Guggenheim Museum, Bilbao, designed by Frank Gehry, it was a success in every way. It was built on time. It was built actually a little bit below budget, not as much as the Empire State Building, but still three million under budget - dollars. And it is delivering like three to five times as many benefits as the owners had hoped in their wildest dreams. Or benefits are like visitors to the museum, people who come to Bilbao and stay in hotels and go to restaurants and so on and do shopping. And for the whole Basque region in the north of Spain. So a huge success. And nobody would say that's not a beautiful project. If you haven't gone there, go there. It's awe inspiring. And the same for the Sydney Opera House. These are actually two buildings you have to see. And we chose the Guggenheim Bilbao exactly to illustrate that you can actually do this, you can do what we talk about and there are people doing it and it's still not only beautiful, but exquisitely beautiful.

Spencer Levy
One more war story, then I'll ask you to wrap it up, because I can't go with this podcast without talking about Jimi Hendrix's Electric Lady Studios. And I'll be straight up with you. I'm a huge Jimi Hendrix music fan. I was not aware of the back story behind Electric Lady Studios, which, based upon the number of artists who have recorded there from Led Zeppelin to Stevie Wonder to Jay-Z, may be one of the great music recording studios of all time. But it started with a vision from maybe the greatest guitarist of all time. Just tell us briefly about that story, why that's an example of how you get big things done.

Bent Flyvbjerg
Yeah, Spencer, I'm also a big Hendrix fan, so because I am, I've written a lot of biographies about Jimi Hendrix. And this story about his studio came popping up in all the books. You know that at one stage he sort of fell in love with his nightclub and he asked whether he could rent it or lease it. And then he wanted to develop it into actually a nightclub at first. But then his producer, Eddie Kramer, a very famous producer who also

produced The Beatles, he told him, “Jimi, I mean, don't do a nightclub, because I know you want to jam with your friends and so on, but do a really cozy studio instead, because then we can next record what you're doing and use it and you're going to be saving enormous amounts of money in studio fees” because Jimi Hendrix spent a lot of time in studios and they paid for that at that time. So Jimmy said, “Hey, that's a great idea.” And they started building the studio and he actually hired somebody who was like 21, 22 years old; a graduate straight out of Princeton University's architecture school. And it didn't go well, to say the least. He'd never tried to design a studio before. And he actually said that, “You don't want me for this, Jimi. I've never designed a studio. I've never even been in a studio,” he said. Said, “No, that's okay. You just go ahead and do it.” And they had huge cost overruns, huge delays. Jimi needed to go on tour to make more money. They were flying the money in bags and then they could start the work again after it had been stopped. And eventually that wasn't enough. And Jimi had to go to his record company and say, Can you help me and can you invest in this so we can get it finished? And the record company invested and they finally got it finished. And it actually is - it's still operating today. It's the oldest recording studio in New York and is famous for its excellent acoustics. So it turned out really well, even though they had all these problems. And that's an argument that is being used in project management. Just start, you know, just start digging a hole, whatever it is, and your creativity will help you and in the end you will be successful. So we test that thesis in the book and we actually document that Jimi just got lucky. The vast majority of projects don't turn out like that. 80% of the projects, if you do it like that, they end up as failures.

Spencer Levy
Well, sometimes it's better to be lucky than good, but I guess most of the time it's not. So Bent, final question: The biggest piece of advice you give to a developer, occupier while they're planning a project.

Bent Flyvbjerg
I would give the same piece of advice that Warren Buffett gives to people in the finance sector, and it's not that different. It’s what your downsides are. A lot of people get too focused on the opportunities and by all means, I’m not speaking against opportunities. That would be idiotic. Opportunities are important. They are what could get us up in the morning and why we do things. But if you forget the downside, you are really setting yourself up for failure. And also, remember, there's not a symmetry between downside and the upside. There's an asymmetry because the downside can actually kill you and put you out of business. And there's no upside that can compensate for that. So therefore, the downside is where you need to put your focus. In addition to keep an eye on the upside, of course. So what's your downside? If I can only give one piece of advice, that's it.

Spencer Levy
So on behalf of The Weekly Take, I want to thank again Professor Bent Flyvbjerg from Oxford University and Copenhagen's IT University, not only for sharing his ideas on *How Big Things Get Done*, his 10th book, but also how these ideas apply to the real estate industry. Professor, thank you very much.

Bent Flyvbjerg
My pleasure. Thank you.

Spencer Levy
For more, please visit our website, CBRE.com/TheWeeklyTake. You can share the show and Professor Flyvbjerg’s big ideas. You can find related content and also subscribe rate

and review us wherever you listen. And don't forget, on our web page, you can also use the new “Talk to Us” feature, a streamlined way to share feedback, questions, or requests which we might follow up on in a future episode. We'll be off next week after the Memorial Day holiday, but we'll return with an episode we're really excited about. Enjoy your long weekend. I'm Spencer Levy. Be smart. Be safe. Be well.