Interview with Igor Wojnicki
Professor of Computer Science at AGH University in Krakow
[transcript]

0:03
Good afternoon. Thank you very much for accepting my invitation and eagerness to talk about your spin-off. Could you please, briefly introduce yourself and describe your background?

0:19
Thank you very much. I'm Igor Wojnicki. I'm currently a professor of Computer Science at AGH University in Krakow. And also I'm a co-founder of GRADIS. That was a company that was established a couple of years ago around 2016-17 I believe. That was a direct result from a research project. Regarding the company itself and the project it was created from

0:49
we deal with designing public lighting. So basically finding out all the parameters of the light post and light points, so the the lamps you see in the streets on the pole. And we do that in a quite unique way that optimizes energy usage. So comparing to the regular way how the the lighting is designed and put on the poles at the streets, we can offer substantial energy savings.

1:21
OK, so this sounds very interesting and how did this idea came up and where can you where can we see these lamps? Are they already in use?

1:30
Yes. Well, actually it's not about the lumps because we don't make lamps. There are plenty of manufacturers. However, lamps have lots of parameters. One of them, of course the power of lamp, but also the way how they lit up areas. So the light

distribution, because they can lit up differently. And also it very depends on how high we put the lamp, what would be overhang of the of the pole, etc. etc., how many poles there are. There's plenty of parameters

2:00
and coming up with a set that

2:04
on one hand saves energy and on the other hand complies with the lighting regulations which provide safety for all the participants of the traffic. It's kind of tricky way. So before us it was done by a hunch of the lighting designer. Then the hunch was later on verified by so-called photometric software. So the software that can calculate how those this light is travelling from the light

2:35
point to the street and how it is reflected and so forth. Now what we offered was a kind of different approach. Let's let's make a computer programme that can analyse the whole situation and come up with a solution that complies with regulations and provides benefits to the owner like energy savings.

2:54
And how this this idea came up? What was the reason to to continue with this idea particularly and when? Right. First we had vague ideas about doing some smart control at the smart city level because, you know, everyone's got it like more or less 2015, 2014 everyone was talking about smart cities, right? But nobody knew what the smart city is and and still the the definition is kind of fussy.

3:25
We came up with an idea that hey, there's plenty of of lighting out there at night, maybe we don't need that much of it. So let's come up with with some kind of smart light control. That was the basic idea we started with.

3:42
But at that time there was no chance to actually do that and there was no actual need. So at some point we joined a project that

3:55
was about lighting. That was, it was a grant from the InnoEnergy. That is kind of international company that supports and stimulates energy related research. So

AGH at that time, together with InnoEnergy, came up with a research project that was kind of wider just enlightening. But there was a part of it that regarded lighting and we joined them. It turned out there was a couple of international partners

4:26
especially from build Belgium and France. And it turned out that their major problem is that not the lighting control as we thought that would be, but actual lighting design. Because they were in charge of lots of lots of light points and they wanted to decrease their energy usage and of course the bills.

4:47
So that was the beginning and the first research that we started towards coming up with lighting design, smart lighting design. Yeah. Yeah. And when you mentioned 'we' what do you whom you mean exactly? Was it you yourself or did you have a team? No. No. It was a team basically a team that was led by professor Leszek Kotulski from the AGH and mainly there were two more colleagues of mine namely it was

5:17
Adam Sędziwy and Sebastian Ernst. And first three of us, Adam, Leszek and me and then Sebastian joined in. We started working

5:30
in this research project and when the project concluded it turned out that hey we did it well. So well that it could be commercialised. And if so,

5:42
InnoEnergy at that point proposed us that, well, they can help us out coming up with a company that can carry this even further and and provide it as a service.

5:53
This how it started and AGH followed up. They they they also had shares in the company when it was created.

6:03
The project you have joined at the time was. By whom was it funded?

6:08
By InnoEnergy.

6:10

Yeah. And most of the money was from European Union. And some of that was also a private money. So that was kind of like combined funding, but it was beyond us, right. So the InnoEnergy gave all the funding for that.

6:32

When you were already working, starting your own company, did you receive any support from the the university or was it like more

6:44

independent? Let's say they were not getting in our way, OK.

6:51

So the support was kind of minimal and more like on the formal background and let's say public relation oriented than actual business support, OK. And did you seek any other support from external sources, I mean like for example, how to protect your IP or that kind of stuff or did you already know it before?

7:19

Well, we knew it, we knew it first hand because you know, we are computer scientists and and IP and and this kind of stuff is is nothing new to us, especially these days. And since software cannot be patented in European Union, that was actually a simple thing. At some point we were considering patenting our solutions abroad, but actually we decided that it's not worth the effort.

7:51

That some patent battles in the future might be so complex and so complicated that we wanted to focus on the product instead and being ahead of the competition.

8:07

Mhm. But is there any competition on the market you for your company or not yet or not developed yet? Yes. Well, first of all, we propose a new way of doing this business. So that was kind of an innovation plot. Of course it was a technical innovation of the software itself.

8:27

So we spend lots of time convincing and proving ourselves worthy to the big players in the market. So the both the manufacturers of

8:39
of lamps as well as utilities. Because depending on the country even in Poland but also across the European Union, utilities own lots of lighting infrastructure, so they are obviously interested in such a thing.

8:55
So we spent lots of efforts on education and

9:00
this kind of of let's say soft

9:07
doing soft things, not necessarily selling your product

9:12
but

9:14
the way but the lighting was designed in either by utilities or manufacturers or anyone else. So they had their own teams that sometimes they were considering us as a competition somewhat sometimes as a help or a way to streamline their processes. There is another company in

9:40
in Belgium I believe, right they are based in Belgium. I think I would have to check it anyway in European Union that advertises themselves as doing similar kind of thing. However, we

9:56
haven't

9:59
encountered their designs or anywhere about except for the web page and and you know the post. So we are, we are hoping actually for some competition because it always stimulates growth. But so far I think we are still leading that that sector of the market

10:20
And which countries are your main markets?

10:25
Do you sell abroad?

10:27
We are based in Poland, we are scaling up right now. Which because of COVID mainly slowed down tremendously but so, so most of our income comes from Poland. However we do

10:43
contracts both with, well Germany, with Georgia, with, we had something in Balkans recently and we were in talks, lots of talks but it takes lots of time with utilities in France. So, so basically it's mainly Poland, but we are expanding to to other European countries.

11:07
We also had talked with Taiwan and we did some pilot for them and now it's in kind of progress, but it doesn't have the scale yet.

11:18
Yeah, I understand. And do you seek collaborations with academia also? Not at this point? I mean, we have a couple of ideas how to extend our product towards for example, indoor lighting. However, and that would be a step to cooperate with other universities and in general academia, but we are focusing on on street lighting for the time being.

11:46
And considering hmm, personal qualifications and qualities. What do you consider the most important to become successful?

11:56
Hahah, this is a tough question. Extremely actually.

12:06
Being lucky I guess

12:09
So being lucky, you know when you are at the right moment, in the right place and it'll just make you an entrepreneur.

12:20
And... but well, jokes aside,

12:25
I think not being afraid to risk

12:29
to risk your time and reputation of doing things wrong, especially wrong.

12:35
So if you can learn from your mistakes and you are not, you are willing to make even more, then this is the quality that would allow someone to, you know, to run a startup.

12:49
I understand.

12:50
And uh, what is the yeah this is the advice I would also give the students. Are there any important things you would like to uh pass to our students or advice or any other interesting things you would like to to share? Yeah. One thing

13:13
from the very beginning, you must think about funding

13:17
and you know next steps what would happen if the business you were imagining happens to be.

13:25
And

13:28
from our perspective,

13:31
we base our funding on public grounds

13:35
and umm,

13:37
we already, we are in progress with one and we already concluded another one. So there's been considerable amount of of funding flowing from that way. However, I wouldn't recommend that to anyone. Frankly.

13:56
Private money is well better suited for any kind of business development.

14:03
Public money are extremely expensive and they limit extremely growth and ability to pivot.

14:12
So if you are, if someone is thinking about getting public money, think again.

14:19
The other is it difficult to attract the bigger player to support your company and development and collaborate with you?

14:28
Yes, it's difficult especially in Poland.

14:31
Polish financial market is quite complex and quite hard to navigate. And why do you think it's easier than, I conclude it can be easier in other countries. And what is your experience, experience in other countries or opinion? We have just some comparison with

14:55
other, let's say companies that succeeded either in EU or, or in States.

15:04
One of our former

15:08
member of the board actually was a quite successful businessman selling his own company in Silicon Valley a couple of years ago. And from his perspective and from his standpoint, it turns out that it's way easier.

15:25
Umm, there in the states? Yeah, yeah, getting the the money and, and actually getting the funding and, and actually making a difference. And and of course it is, it's connected with risk management, which is pretty much obvious, but but it's a totally different perspective

15:46
And regarding risks. What are the main risks for your company at the moment? What do you consider the most dangerous in the on your path? Politics.

15:57
OK. That's honest answer. Yeah. Well it's you know it's both positive and negative risk. Because

16:06
we already did some let's say Poland wide analysis of how changing lighting infrastructure can stimulate both the growth of the country as itself and and even influence the global energy prices and the problem of lack of energy in Poland. However, you know, getting with this kind of information to someone that

16:38
is in charge is extremely, yeah. And it's extremely, let's say,

16:44
politic oriented no matter what...Sensitive. Yeah, yeah, incentives are. So that's challenging. And we also tried that way. Yeah, yeah, I get it.

16:58
And, how many people are there currently in your company engaged? Ohh, currently we are, we are having around 20

17:10
plus people.

17:12
Mm-hmm.

17:13
I understand. And um, where do you see you, yourself and your company like in 10 years or 15 years?

17:25
I can imagine you must have a vision

17:28
to start a company. You definitely must have a vision to start the company. And so

17:33
what is the plan? Yeah, well, frankly when we were starting we

17:41
we had this mission right that hey we did something that that makes a difference. So why not to share it. So that was very philanthropic mission.

17:54
Right now, especially when we are in contact with big utilities, we see that the potential is there. So I believe in the 15 years,

18:04
you know, we will have less energy consumed globally in the world thanks to our solutions, our software and and you know, I could probably say that that, hey, that was us who did that. So yeah...

18:21
But I have no idea what's gonna happen.

18:25
OK, I understand.

18:27
And from my side, um, I have enough information. Is there anything else you would like to add or comment?

18:34
Uh, no. I think.

18:37
I think that would be it. So no more comments.

18:41
OK. Thank you very much for the interview then.

EUROPEAN UNIVERSITIES
Erasmus+

Université de Toulouse

AGH

UNI.LU
UNIVERSITÉ DU LUXEMBOURG

LULEÅ UNIVERSITY OF TECHNOLOGY

hhu Heinrich Heine Universität Düsseldorf