

The fourth week: Starting to taste the **SECRET SAUCE**

19. April 2018

In phase 4 of the REMODEL programme, it is now time to dig deeper and start imagining how the open source mechanisms can be applied concretely in the business strategy of the companies' products. The secret sauce? Not the open source bit, but rather the magic of building community.

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We have now stepped into Phase 4 of the REMODEL

programme and have thereby reached the half-way marker. This brings the IO Danish manufacturing companies, who are exploring new business strategies and models based on open source principles, to the level where they start to have an overview what it takes to go open and harness the full potential of inviting users and customers to join the community surrounding their product and to take an active, contributing role by becoming co-creators.

Up until now - in the first three phases of REMODEL - we have mostly been laying down the foundation for understanding what open source is and how it can potentially be applied to not only software and virtual products, but also on physical products and hardware. With this understanding more firmly in place it is now time to dig deeper and start imagining how the open source mechanisms can be applied concretely in business strategy of the companies' products.

“Honestly, the system map was a true pain in the ass in the beginning as we could not really make it work. Instead, we tried to make some sketches on paper, and once they were done we tried again. Second time around it materialized!”

Phase 4 - Building community and your system map

In this 4th phase of the REMODEL program the companies started to lay the foundation for establishing a community around their product. First they mapped their existing ecosystem of stakeholders - from users (or customers) to collaborators, partners and external influencers - before diving into re-imagining what the full scope of the "system" around their product needs to look like in order to potentially create and maintain a community of co-creators to boost innovation and product development. This is done through an exercise called “the system map” - developed by Nicola Morelli of Aalborg University - which helps map money flows, assets building, human resources needed and

other critical factors the companies need to put efforts into facilitating (and engaging with), as well as how all these connect to each other. In essence, you visualize the apparatus needed to develop, manufacture and sell the product including all the elements and their interconnectedness. One key exercise we have added in the REMODEL program is then to subsequently identify which of these elements could be open sourced in order to optimize value creation. Here is an example of what that looks like:



What did we learn? Open sourcing hardware is complex

Major learnings are really starting to pour in from the work done by the IO companies as they have reached this phase of the program. For instance, it is becoming more and more apparent that open sourcing hardware is much more complicated than open sourcing software. One on hand because these days most physical products comprise of several elements that are not physical, ie. services, software or other virtual elements that are essential to the application of the physical product but not directly a part

of it. For instance online platforms, data streams and even services, which may just as well be opened. But does that this make the product itself open? Concretely, in the REMODEL program, we have included a reworked version the Open-o-meter tool, made by Jer my Bonvoisin, NAME and NAME, which does a really good job at defining exactly what makes physical products open.



4.3

OPEN-O-METER

WHICH
SOURCES
HAVE YOU
OPENED
FOR

_____?
(Write down element)

DO THEY ALLOW FREE REDISTRIBUTION OF THE FULL PRODUCT, ALSO FOR COMMERCIAL PURPOSES? Do they use an open (source) license on all elements of the product?	<input type="checkbox"/>
DO THEY ALLOW FREE REDISTRIBUTION OF SOME ELEMENTS, ALSO FOR COMMERCIAL PURPOSES? Do they use an open (source) license on some parts/elements of the product?	<input type="checkbox"/>
DO THEY ALLOW PARTIAL OR FULL REDISTRIBUTION FOR NON-COMMERCIALS PURPOSES? Do they use a legal license that allows users to redistribute without economic gain?	<input type="checkbox"/>
IS THE PUBLISHED BILL OF MATERIALS EDITABLE? The bill of materials is published in editable format	<input type="checkbox"/>
IS THE PUBLISHED ASSEMBLY INSTRUCTIONS EDITABLE? The assembly instruction is published in editable format	<input type="checkbox"/>
ARE THE PUBLISHED DESIGN FILES IN EDITABLE FORMATS? One or more of the file formats used is editable	<input type="checkbox"/>
IS THE CONTRIBUTING GUIDE PUBLISHED? A guide for how users can contribute is available	<input type="checkbox"/>
IS THE BILL OF MATERIALS PUBLISHED? The product bill-of-material is publicly available	<input type="checkbox"/>
ARE ASSEMBLY INSTRUCTIONS PUBLISHED? Instructions for how to assemble are publicly available	<input type="checkbox"/>
ARE DESIGN FILES PUBLISHED? Technical components of the product is publicly available (CAD-files, computer code, schematics etc.)	<input type="checkbox"/>

POINTS TOTAL:

10

Fully open
source

0

Fully closed

This version of the Open-o-meter is a derivative of the original Open-o-meter developed by Jer my Bonvoisin et. al. from OpenU/Technische Universit t Berlin, CC BY 4.0.

Danish
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The REMODEL Open-o-Meter.

But it performs less well in dealing with these non-physical elements as mentioned before. This made it hard at first for several of the companies to identify firmly what they should

open and how to do it. One company said: “We realized suddenly how the Open-o-meter is mostly for products and not services or channels,” and then continued: “However the mindset and approach it represented was pretty clear and we could use that to discuss more broadly what we could open both in hardware and non-hardware terms.”

The secret sauce? Not the open source bit, but rather the magic of building community

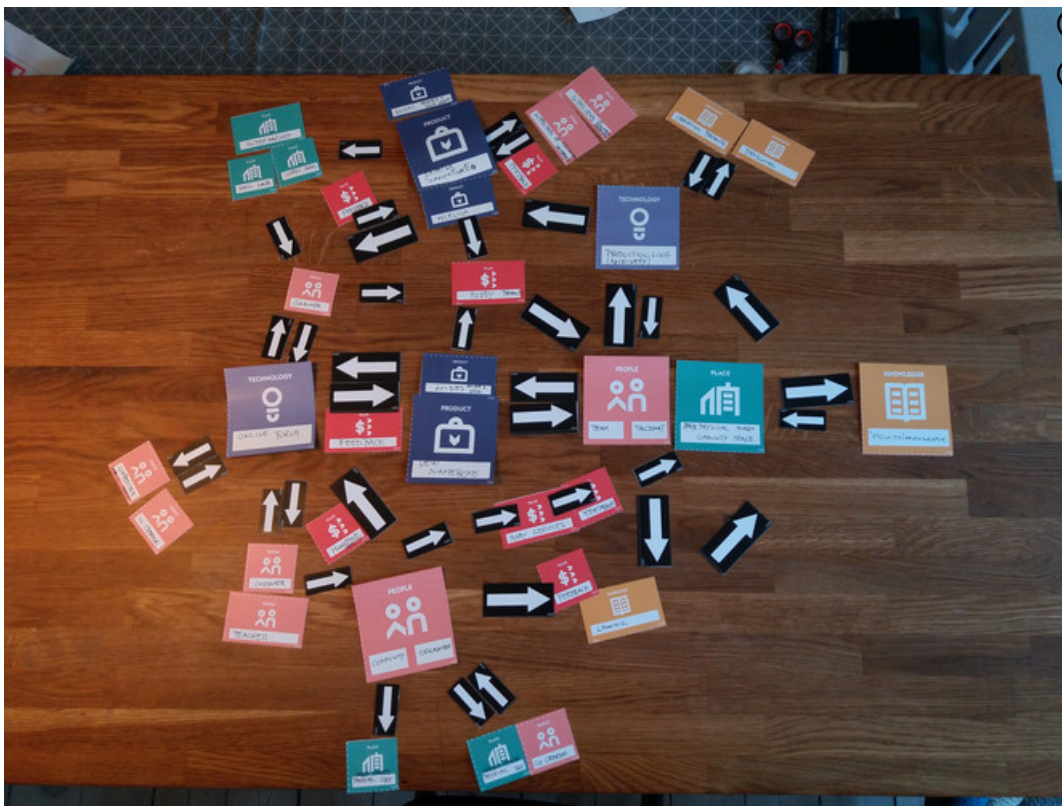
It is also becoming clear in the work of several of the companies that simply opening up single elements of the product does not actually contribute a lot of measurable increase in value creation. The real trick lies in the community building element of the business strategy; namely how to motivate users to engage with those open elements. The classic “build it and they will come”-principle only goes a little way in crafting a radically new business model. Instead it is the social design of the engagement that make up the secret sauce. This is also why the idea of making “system maps”, as briefly described above, makes a lot of sense because this exercise prompts the companies to consider the relationship between the opened elements and the users and actually design the interaction needed. For instance, what kind of channels or platforms need to be set up (or found elsewhere) to enable meaningful knowledge and idea exchange - and even concrete co-creation activities? And how do we get people to understand the opportunities now being made possible - and engage?

The system map exercise did a brilliant job in igniting creativity in this space. But that doesn't mean it was easy. One company expressed it very bluntly:

“Honestly, the system map was a true pain in the ass in the beginning as we could not really make it work. Instead we tried to make some sketches on paper, and once they were done we tried again. Second time around it materialized!”. In general the system map was not only really helpful in talking through the different elements surrounding the product (and their interconnection), but it was also very useful to see where value actually appears in the system. Perhaps most importantly: All companies said how fun it

was. In contrast to other similar exercises like the Business Models Canvas, which - while very useful in many ways and contexts - was rather quickly discarded in our early REMODEL tests with companies last year because it, quite frankly, was a bit of a drag to complete according to the companies. So kudos to Morelli and his team for making business strategy work playful and fun.

Here is an example of one of the early stage system maps made by one of the companies:



An early stage system |

This has also opened up lots of discussion around value creation in the companies: What kind of value is it that the opening of certain (or all) elements can yield? Profit is of course one of the ways the value of any business model can be measured, but is direct increase in turnover the most attractive value a new business model can create? For instance, if you have to balance the cost of creating a

stable and active community of, say, a thousand highly competent co-creators against the direct profit it will create in short term will probably not be lucrative. But the subsequent increase in innovation pace, boost in competitiveness and the direct relationship with your core customers in order to learn about their needs and habits in real-time might present something far more valuable. Also in terms of profits down the line. So value really can be measured in many other ways. We'll get back to that later.

Overall we have now started to get our fingers dirty and are really excited to dive into the challenges of opening up manufacturing and harnessing the business value of open source hardware. Stay tuned for next week!

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This article is part of a series about the REMODEL programme

Want to learn more about what the REMODEL programme is? Go here: [About REMODEL](#)

Or curious to know which IO innovative manufacturing companies are taking part? Go here: [IO manufacturing companies are ready to experiment with open source](#)

To get the grand overview of all writings about the REMODEL business experiments in open source manufacturing, go here: [REMODEL](#)