

# BUILD SOLUTIONS

## ONLINE CHALLENGE REPORT: SELECTION OF THE BEST START-UP GROUP

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Author(s):	Martin A. Petersen
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## 1 – FOREWORD

### Building Urban Intelligent Living Design Solutions

Cities currently host more than half of the world population, which is projected to increase up to 70% by 2050 (UN, 2014). Already, cities account for 70% of global CO<sub>2</sub> emissions (C40). With the expected population growth, cities would hence be the source of an estimated 85% of global GHG emissions.

There is a growing recognition and awareness that nature can help to provide viable solutions by using and deploying the properties of natural ecosystems and the services that they provide in a smart and 'engineered' way (EC). These living solutions provide sustainable, cost-effective, multi-purpose and flexible alternatives for various objectives. Working with nature, rather than against it, can further pave the way towards a more resource efficient, competitive and greener economy. It can also help to create new jobs and economic growth, through the manufacture and delivery of new products and services, which enhance the natural capital rather than deplete it (EC).

With that in mind, the big question is, why are nature-based solutions not used more to address the global urban challenges?

The main answer would be that there's a distinct skill and financing gap in the biotechnology sector. While we currently have great researchers in biotechnology, too often the commercialization and hence the implementation of their discoveries stumble due to a lack of personal experience in entrepreneurship and cooperation with industry leaders (Fritsch, 2010).

And even when most of those skills are present in a team attempting to commercialize a technology, another obstacle rears its head: the lack of short-term funding available to biotech start-ups and spinoffs (Swamidass, 2008). Recently, the High-Level Group for the European Innovation Council published their first recommendations which state that funding for disruptive, market-creating start-ups with deep-tech solutions (like biotech) is severely fragmented and doesn't meet the needs of the start-ups for developing the technology ([http://ec.europa.eu/research/eic/pdf/eic\\_recommendations\\_set-1\\_2017.pdf](http://ec.europa.eu/research/eic/pdf/eic_recommendations_set-1_2017.pdf)). The lack of funding can be attributed to multiple factors, chief amongst them being the perceived risk and the huge capital expenditures necessary to develop sound biotechnology solutions.

Building Urban Intelligent Living Design Solutions (BUILD Solutions) project aims to set up transdisciplinary cooperation among universities and business, engaging students, teachers and researchers and providing them with the necessary entrepreneurial skills and connections to bring intelligent living solutions

to the market, by investigating biological systems, creating smart design prototypes, business plans, plans for start-ups and working with accelerators.

The project's objective is to develop an experimental transdisciplinary educational system linking biology, intelligent design and business through several kinds of activities, such as courses for students and trainers, symposiums, development of educational resources, the set-up of an Accelerator Programme, launching an international call for ideas and creating new networks.

The project is co-funded by the Erasmus+ Programme of the European Union.



Living design solutions provide sustainable, cost-effective, multi-purpose and flexible alternatives for several urban challenges.



## 2 – THE ONLINE CHALLENGE

At the end of the second semester, BUILDs organized an Online Challenge where all the 5-start-ups had to present their start-up product idea by uploading to the intranet the following set of materials that was to be reviewed by trainers and by a selected jury of renowned experts:

- start-up description
- pretotype
- business plan: one of Lean Model (Sustainable) Canvas or (Sustainable) Business Canvas
- go-to-market plan for first 5-20 customers
- pass/fail hypotheses regarding product-market fit
- architectural preliminary research as to where their solutions could be used in the urban space
- 3D renderings of their solutions
- customer and end-user interviews and notes
- test of biological parameters for their solutions' feasibility
- slide deck with 3-minute pitch
- other materials they wanted feedback on

In the Final Pitch the start-ups would present their company in front of a mixed group of investors and experts from various business fields (Law, IPR, accounting). The pitch emulated the most common type of pitches seen in the start-up ecosystem, at pitch competitions, demo days, and the like.

The pitch served multiple purposes:

- 1) To allow BUILDs trainers to get multiple expert opinion on how BUILDs students' start-ups had fared since their inception in early January 2020.
- 2) To give the student start-ups a clear and tangible goal to strive towards from the beginning of the programme.
- 3) To choose a BUILDs start-up that would have a month of acceleration in Copenhagen in BLOXHUB where they would get a lot of hands-on coaching as well as the opportunity to grow their business. The Accelerator would also help BUILDs trainers identify what, if anything, had been missing from the initial six months.

### 3 – THE FINAL PITCH

The Final Pitch was set up as a digital Demoday the 8<sup>th</sup> of June 2020, from 14-17 CET.

The session was structured as follows: student start-ups pitched 3 minutes each with up to 20 minutes of Q&A following the pitch. The Q&A was moderated by Martin from GTC, but questions were posed by the jury. It was also the votes of the jury that decided which student start-up would end up going to Copenhagen.

Each Jury member would give one grade of 5 to their favourite start-up, 4 to the second favourite, etc. until they had given 5, 4, 3, 2, and 1 points to the different start-ups.

The points were tallied in the end to decide who would win the Final Pitch , awarded with one-month Accelerator Programme at Bloxhub, Copenhagen.

The Jury consisted of:

- Morten Hoegh (ACCOUNTING AND VALUATION: KPMG)
- Jytte Prieem Balle (INTELLECTUAL PROPERTY RIGHTS: Awa)
- Matias Wilhelm Warnøe Nilsen (LAW: Moalem Weitemeyer Bendtsen Advokatpartnerselskab)
- Jesper Andersen Carvalho (INVESTOR: Equity Ventures SGPS and Green Equity SGPS)
- Martin P Klee (INVESTOR: <http://seed-funding.dk/>)
- James Digby (INVESTOR: 3 BN Ventures)
- João Ferrão dos Santos (INVESTOR: Maze Impact)

The Jury was chosen to represent both investors, but also specific experts with insights that could help foresee which start-up would have the highest chance of succeeding.

One week prior to the pitch itself, the start-ups had uploaded the more technical documents mentioned in the previous section (product specifications, drawings, any detailed/number heavy analysis etc).

These were their pitch presentations:

Team 1 - [Epiclay](#)

Team 2 - [PlayJungle](#)

Team 3 - [Worm Generation](#)

Team 4 - [aeroSQAIR](#)

Team 5 - [C:aire](#)

After a tight deliberation, the jury selected Epiclay as the most promising start-up! Their decision was based on which start-up they would a) like to invest in; b) which start-up they predicted would succeed and make a positive environmental impact.

### 3.1 Agenda

The Final Pitch took place on Monday 8 of June, from 2 PM to 5 PM, via Zoom. The agenda was the following:

1. BUILDs Introduction, by Martin A. Petersen (GTC), 1-2 min
2. Experts Jury Introduction, by Martin A. Petersen (GTC), 5 min
3. Start-up Pitches
  - 3 min pitch
  - 20 min experts jury feedback (trainers can jump in with technical questions after jury members)
    - Group 5 > 2:15 - 2:40 PM
    - Group 4 > 2:40 - 3:05 PM
    - Group 3 > 3:05 - 3:30 PM
    - Group 2 > 3:30 - 3:55 PM
    - Group 1 > 3:55 - 4:20 PM

*To allow the judges time to evaluate the session was divided in two after the pitches. One room for the judges to deliberate and one for the BUILD Trainers and student start-ups to share their journey and learnings.*

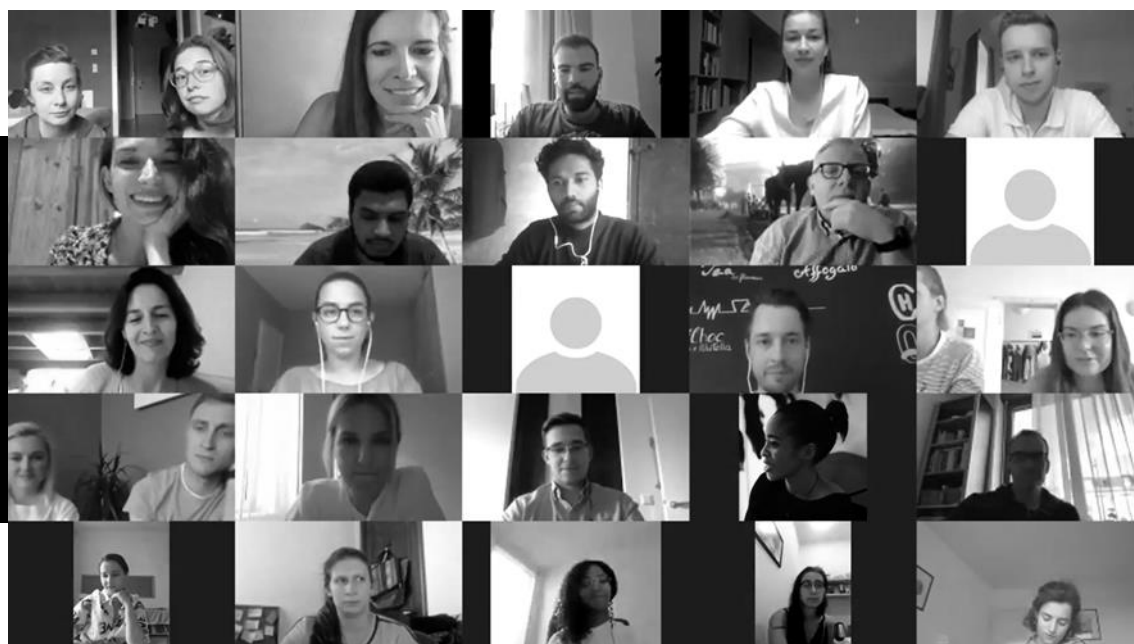
4. Session divides in two for 15 to 20 minutes (4:20 - 4:40):

- Room 1: Jury Deliberation (moderated by Martin A. Petersen (GTC))
- Room 2: Students + Trainers

*Room 2 went through a slideshow of pictures of the work done throughout the semester, from students and trainers. The slideshow was created and presented by Hannah Frost and Laura Carlotta from WU. Room 2 also had time to look forward and present what the prize would include. This meant a brief overview of the Bloxhub Accelerator Programme (how weeks are structured, classes, meetings, etc. and mentioning that to the highest extent possible, session in Copenhagen would be video-filmed and joinable also by the 4 start-ups that would not make it to Copenhagen). After the presentation of the programme in Copenhagen a brief Q&A followed as well as 1-2 evaluation questions to the start-ups, by Marite Guevara from Ersilia.*

5. Jury Decision Announcement, by the jury (4:40 PM)

6. Closing session: BUILDs shared memories (4:50 PM) by Hannah and Laura (WU)





## 4 – METHODOLOGY AND EDUCATIONAL GUIDELINES

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The Final Pitch emulated the kind of pressure in which start-ups often find themselves: working with a tight deadline with a lot of uncertainty to achieve growth.

The weeks prior to the final pitch, the start-ups could book mentoring sessions with the trainers and pitch sessions with Martin Andreas Petersen from Greentech Challenge.

It was important to the trainers that start-ups took the initiative to book the help, mentoring, and coaching needed, and all the start-ups showed great initiative; probably spurred on by the will to win. The pitch training sessions were naturally in high demand, but the start-ups did not hesitate to book subject matter experts amongst the teachers to find new ways of moving forward.

## 5 – OUTPUTS

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The outputs were:

- A business case with scientific evidence and architectural considerations.
- A pitch, a pitch deck, and a Q&A session from and for each start-up.
- Advice from active stakeholders in the start-up ecosystem
- A fair and unbiased way of choosing the winner and participating start-up in Copenhagen.
- A new angle allowing both trainers and student start-ups to see the start-ups in a new light.

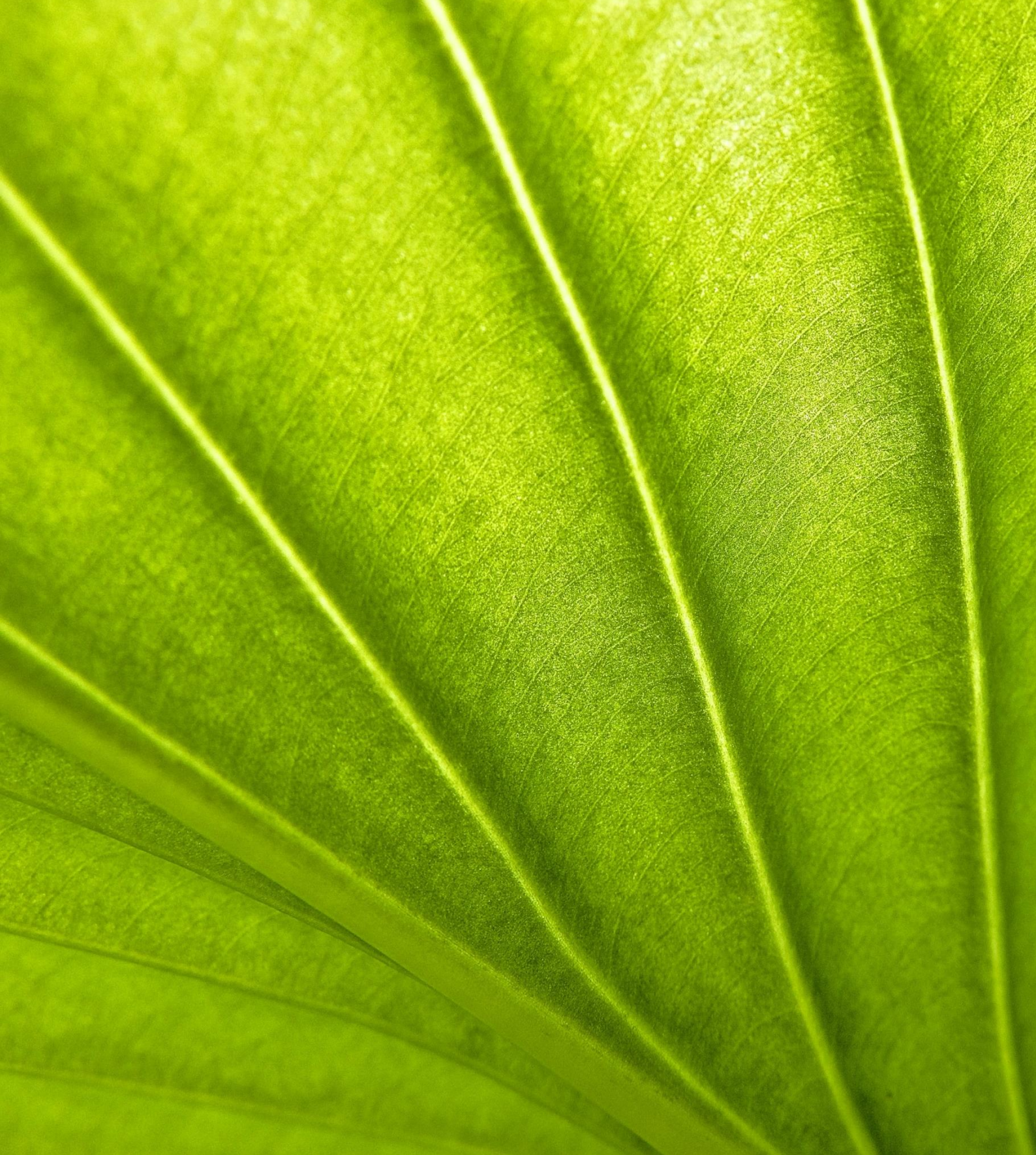
## 6 – CONCLUSION AND LESSONS LEARNED

The student start-ups were tremendously motivated by having a final pitch with a very real prize attached to it (the Accelerator Programme at Bloxhub, Copenhagen). Furthermore, the use of external experts both removed any bias the trainers might have had from being mentors throughout the process of the One-Year Programme. Using external experts also gave new insights as well as ensured that all participating student start-ups would walk away with precious advice that could help them grow their business. Last, but not least, using external experts who all either invested in start-ups or had start-ups as customers followed the BUILDs student start-up philosophy of staying close to the market.



IAAC Valldaura Labs: taking nature as an inspiration for the design of responsive buildings and resilient urban spaces!





Building Urban Intelligent Living Design Solutions, 2018-2021

