

BUILDING COMPANIES BASED ON SCIENCE

A new “Field Lab” course at NOVA-SBE

NUNO ARANTES-OLIVEIRA

Invited Associate Professor

August 2019



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BACKGROUND:

Science-based entrepreneurial ventures have been a crucial element in turning investment in research and development into new, high value-added technologies, products and services.

Many of the groundbreaking, science-based products that have appeared in recent years were brought to life by entrepreneurs who spun out their businesses from existing, larger corporations or from academic R&D labs.

This happens largely because (1) academic R&D labs often don't have the experience, the culture or even the objective of fully developing new products, and (2) established companies often lack the bandwidth or the resources to invest in early-stage groundbreaking projects that may be outside their strict scope.



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WHAT WE WANT TO DO:

This course will allow NOVA SBE students to **take existing, early-stage scientific and technological breakthroughs** stemming from companies and academic labs, and **explore the best paths for their transformation into new products or services.**

For this purpose they will work closely with the originators of the new technologies to **set up a business plan for a new business venture**, typically a spin-out from the mother institution where the breakthrough occurred.

Ideas stemming from MIT Portugal Program-affiliated groups are sought for this purpose.



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HOW WILL WE DO IT:

SBE students will take novel research breakthroughs arising in the R&D institution (e.g. ITQB), and will **build the essential elements of a new company (“NewCo”)** designed to exploit those breakthroughs.

This will include the identification of fundraising needs, of potential strategic partnerships, of an Intellectual Property (IP) strategy, of critical skills, and of possible exit scenarios for the entrepreneurs and the investors.

Crucially, it will also include the **definition of a business model (or several) in articulation with the originating institution.**

All existing IP will remain exclusively with the originators. Any IP generated during the work that is related directly to the original technology will belong to the originating scientists and institutions.



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EXPECTED RESULTS:

The outcome of this exercise will be **actual business plans ready to be turned into new business ventures** by the originating institution, the inventors and/or (if desired by all) the NOVA-SBE students themselves.

The business plans created will also form the basis of a **Master’s Thesis**, to be submitted and presented by the end of the semester (confidentiality requirements will be accommodated).

NOTE: students are expected to take a **hands-on approach**, where they interact directly not only with the originating institutions and their key individuals, but also with relevant stakeholders such as **potential investors, strategic partners, IP experts, KOLs, regulatory agencies**, and so forth, as applicable.



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