How to ‘spin-off’ a research project

A step-by-step guide

by

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Who am I? What am I doing here?

- Arda, 30 years old, from Turkey, Istanbul; PhD in Environmental Engineering.
- Lived in many different cities and countries; likes traveling, reading and music.
- PhD Research: Metal recovery from electronic waste, defended in November 2016.
- Initiated a start-up, participated and won several contests.

Motives to conduct research

- Motivated to:

✓Define and solve a problem;

✓Create something new;

✓Innovate!

- By using the **scientific method**: hypothise > test > validate

How to promote an innovation idea?

To the general public

Piles of discarded devices: A global problem

- Average lifespan of a phone is 18 months.
- No sustainable solution yet, most of the waste is improperly managed.

***Photo credit**: Chien-Min Chung*

Electronic waste: A threat and an opportunity

***Photo credit**: Remko Tanis*

- Mostly European waste shipped to developing countries.
- Loss of resources, degradation of the environment.

Urban mining: A booming market

***Source**: United Nations University, 2015*

- 48 billion EUR embedded in form of metals to be recovered.
- *Recova* targets the **critical and technology metals** recovery.
- Recycling rate is very low particularly for critical metals (down to 1%).

Your innovation checklist

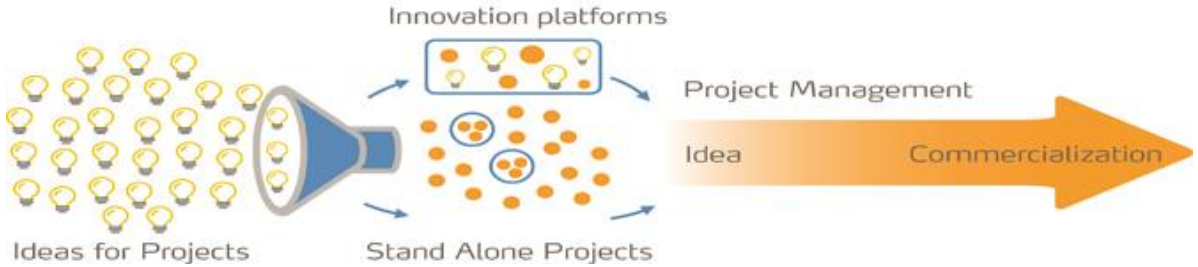
Ensure these points are checked

From idea to implementation, and the market (hopefully eventually)

- Critical questions:

✓Could it make it to **commercializing phase** and eventually the market?

✓**Clients**? **Partners**? **Investors**?



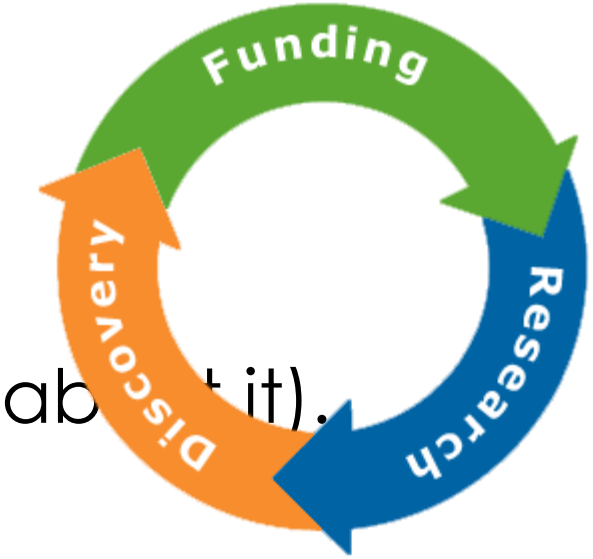
✓Value propositions? Business model? Credibility? Scalability? Potential to create impact?

Essential measure: Technology readiness level (TRL)

First steps to bring your idea to the next level

- Re-validate your **results**.
- Does your idea have the potential **make a difference**? Can it innovate?
- Network, discuss, brain-storm.

Funding, innovation contests



- There are so **many**!
- **Market** your idea (even if you don't fully sure ab t it).
- Some sources: **Public funds** (Horizon 2020), **Innovation contests**, **start-up networks**, **incubation centers**.
- Network, network, network!

Philips Innovation Awards 2016

How? When? What? Who? Where?

Philips Innovation Awards 2016

- First step: Respond the call for proposals.

- Business proposal, 10 pages, follows a defined structure.

- 350+ proposals received, 35 invited to the semifinal.

Semi final – Safari for a PhD researcher

- 35 semi finalists.
- Public exposure.
- 1-min pitches.

Semi final: Made it here

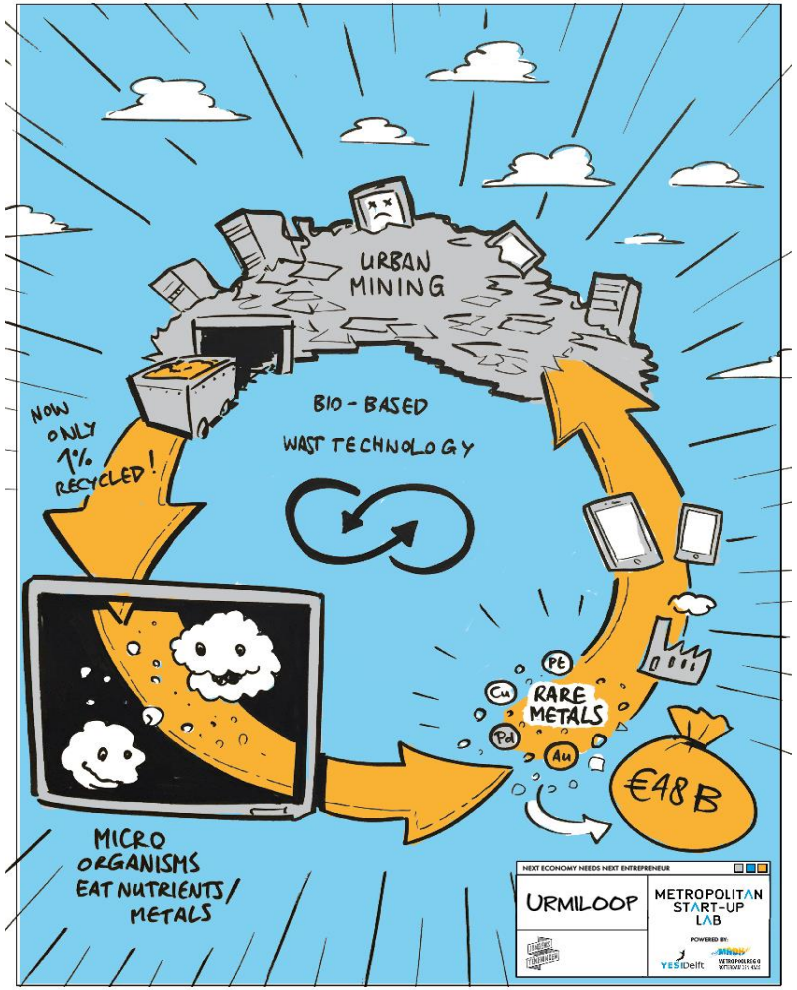
Final – You're on TV!

Result: Phillips Innovation Awards Rough Diamond Award winner

Won! What next?

- From innovation idea to practicality.
- More innovation contests and similar platforms.
- Contacts, get outside the academic bubble.
- Promote the idea, even at Saturday night parties!

Metropolitan Lab



Funding sources

- Additional funding: H2020 SME Instrumen
- More fuel to improve your research idea.
- Network, network, network!

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SME Instrument

What I do now?

- Global Environmental Management in electronics sector.
- Given large array of responsibility, including materials (chemicals) management, and innovation.
- Spoiler: PHIA helped me get there.

Take home messages

- Be **bold**! Take the initiative!
- The experiences are **invaluable**!
- Get out of your **comfort zone**!
- **Personalize**, **uniquify**!
- Network, network, network!

Thanks for your attention!

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…and/or just come and talk to me, I will attend CEST!