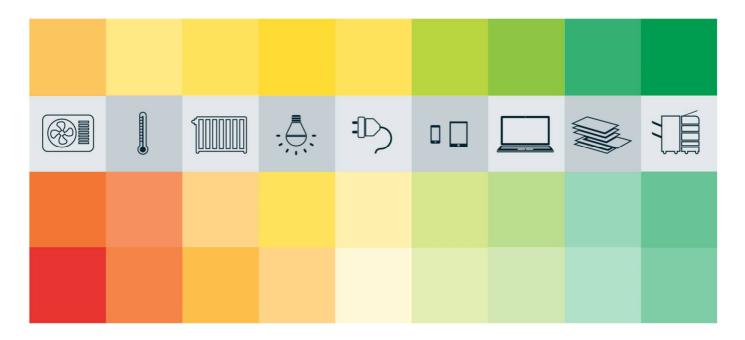


ENGAGING EUROPEAN STARTUPS AND YOUNG SMES FOR ACTION FOR SUSTAINABLE ENERGY



D5.3 Startup mentoring handbook





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Foreword

"The only way forward, if we are going to improve the quality of the environment, is to get everybody involved." - Richard Rogers (architect)¹

Why START2ACT?

Research shows that by making low- and no-cost changes you could reduce energy consumption and costs by 20% in your office. If you put in perspective, a 10 000 EUR energy bill can be reduced to 8000 EUR. 2000 EUR saving which can be used to sponsor an inspiring team dinner or simply boost your marketing budget. You can achieve this simply by applying a few, simple energy saving measures!

START2ACT's mission is to help young SMEs and startups save energy and cut costs at work by introducing simple yet effective energy efficiency measures into their daily routines. To achieve this, we are offering free-of-charge mentoring and training activities in the participating countries: Belgium, Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and United Kingdom.

How to use this handbook?

This handbook intends to give an overview of the startup ecosystem and its peculiarities, and how to provide an effective, tailor-made mentoring programme of these young, ambitious companies. In terms of structure, at first you will receive advice how to define and where to find startup companies, what are the characteristics and language used in the ecosystem, also some insights of the most used methodologies in startup development (see: vocabulary). Recommended format and questions will guide you through the mentoring topics while leaving you enough freedom to add your own insights and resources.

In some parts, country-specific data is advised to use, therefore you should customize the content as per the local market, e.g.: sharing tips on local funding opportunities or discussing procurement practice with the participants.

The handbook, so as the mentoring kit, follows the SEE-CHECK-ACT premise. Starting with a general, enticing and thought-provoking overview of what energy is and how it is consumed, participants will then understand the broader implications of energy use, thus how to monitor and optimize individual and company consumption. Finally, concrete actions points will hopefully facilitate behavior change and inspire action from the startups. Topics like sustainable equipment procurement, transport and mobility, or funding and co-investment opportunities will help choose action points suitable for companies fitting to their current development phase.

To conclude, startups will also receive checklists and easy-to-do energy saving tips along with a list of European and local acceleration programmes specializing in energy or green solutions (where it is applicable).

For you, the handbook includes the training content and references to dig deeper what drives energy efficiency for small, starting companies, yet you are free to refer to your own research, best practices and resources. The more information, the merrier!

Questions and remarks are always welcome. Let's do it the lean startup way – build, measure and learn!

¹ http://architectuul.com/architect/richard-rogers



1. Startups in general

The definition what we call startup is one in the making, there is no European regulatory framework setting the rules governing startup companies. As of now, there are many approaches in use, the expression is becoming widely used – in many cases also describing SMEs without the startup elements-, yet experts agree on the following baseline:

A startup is a project that is scalable, innovative and technology based. It is called startup during their validation and growing phase, but there is not a concrete time frame for that.²

"A startup is a company designed to grow fast."

Paul Graham, founder of Y Combinator

1.1 Definition examples

"A startup is an independent organization creating an innovative, tech enabled, scalable product."

"A startup is a company designed to grow fast... The only essential thing is growth. Everything else we associate with startups follows from growth." - Paul Graham

Paul Graham differentiates between startups and new businesses on one particular parameter, the potential for scale and hyper-growth. A startup's potential to achieve hyper-growth and rapid scale is largely dependent on the types of growth strategies it implements.

European Startup Monitor study

Within the scope of the European Startup Monitor study, startups are broadly defined by 3 criteria:

- » They are younger than 10 years
- » They focus on innovation either in technology or the business model
- » They are growth oriented and aim for such in turnover and/or number of employees

US definition

A Startup is a technology enabled company with high growth potential - technology can be proprietary or not. The high growth potential is judged by the market it potentially targets -not just for the first product but for the vision as well (cause though it may start targeting a niche, in Crossing the Chasm style, it aspires to mainstream to become hugely relevant. In combination with Steve Blank's definition, where Startups are temporary organizations, searching for a scalable, repeatable business model.

A "scalable startup" takes an innovative idea and searches for a scalable and repeatable business model that will turn it into a high growth, profitable company. Not just big but huge. It does that by entering a large market and taking share away from incumbents or by creating a new market and growing it rapidly.

^{1. &}lt;sup>2</sup> Source: http://www.paulgraham.com/growth.html





A scalable startup typically requires external "risk" capital to create market demand and scale. And the founders must have a reality distortion field to convince investors their vision is not a hallucination and to hire employees and acquire early customers. A scalable startup requires incredibly talented people taking unreasonable risks with an unreasonable effort from the founders and employees.

A scalable startup is designed by intent from day one to become a large company. The founders believe they have a big idea – one that can grow to \$100 million or more in annual revenue—by either disrupting an existing market and taking customers from existing companies or creating a new market. Scalable startups aim to provide an obscene return to their founders and investors using all available outside resources.

1.2 Elements of definition

- » Scalability is the capability of a system, network, or process to handle a growing amount of work, or its potential to be enlarged in order to accommodate that growth.
- » Scalable in the startup content: scaling the business fast a business model that allows scalability.
- Innovation can be viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. This is accomplished through more-effective products, processes, services, technologies, or business models that are readily available to markets, governments and society. The term "innovation" can be defined as something original and more effective and, as a consequence, new, that "breaks into" the market or society.
- Technology is the collection of techniques, skills, methods and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation. Technology can be the knowledge of techniques, processes, etc. or it can be embedded in machines, computers, devices and factories, which can be operated by individuals without detailed knowledge of the workings of such things.

Hence, as per above, the Startup Definition recommended to use:

"A startup is an independent, unlisted, innovative, tech enabled, scalable enterprise designed by intent from day one to become a large company —by either disrupting an existing market and taking customers from existing companies or creating a new market - aiming to provide obscene returns to their founders and investors using all available outside resources." (European Startup Network)

Where:

- » **independent**: the legal definition another company or organization does not own more than 25% (need to check this) of its share capital
- » unlisted: means an SME which is not listed on the official list of a stock exchange, except for alternative trading platforms.
- » innovative: as per General Block Exemption Regulation Definition provided above
- » tech enabled



» scalable

2. How to work with startups

Where to find these "special species", the mysterious startups?

In most countries, the startup ecosystems are rapidly evolving creating more and more headlines and articles in the local media. Capitals are in general the breeding ground of startups, however incubators, accelerators and coworking spaces are popping up all over Europe. National **startup associations** like Startups.be, Austrian Startups, Startup Estonia or the German Startup Association collect information and showcase them in centralized platforms and maps. Not only at national level, but in many cases the most important cities also launch startup programmes like Startup Amsterdam or Startup Lisboa. More information about the European startup ecosystem players can be found here: www.europeanstartups.org

Desk research

The first step is to check whether your own organisation already works together with knowledge centres of universities who usually support innovative spin-off companies (typical target audience!). A desk research about the operating incubators and accelerators in your city is also recommended, they are usually the best source of information and the gateway to startup companies. Alternatively, a list of co-working spaces in the city can help identify startups should the desk research not provide sufficient results. Government-supported initiatives and funds are also prevalent, therefore the Digital Agenda policy of your home country could provide you with further reading on the startup ecosystem development.

Working spaces

Startups typically work in co-working spaces, offices provided by incubators or accelerators, or simply from home or public spaces. Usually when they achieve product-market fit and start generating revenue or acquired a round of financing is the moment when they start to consider owning an office. Use cases differ as there is no one-size-fits-all scenario, therefore it is better to ask startups in which stage of development they are for the moment, whether they participate in incubation or acceleration programme, and how many employees are working on the project.

Lean startup philosophy

 $Source: http://thelean startup.com/images/methodology_diagram.jpg$







Lean startup is a methodology is a worldwide movement coined developed by Eric Ries. Startups typically use it to iterate products and services at a fast speed and with a minimized turnaround time in agile software development. It aims to shorten iteration cycles by adopting a combination of business-hypothesis-driven experimentation, iterative product releases with validated learning. Learn-buildmeasure is its central thesis. The central hypothesis is that if startup companies invest their time into iteratively building

products or services to meet the needs of early customers, they can reduce the market risks and sidestep initial project funding and expensive product launches and failures.³

2.1 Vocabulary⁴

The startup world uses its own lingo, similarly to any industry-specific jargon. When talking to startups, it comes in handy to study the terms used by startup entrepreneurs. A possible scenario is that entrepreneurs may not realise that they speak in jargon which is not widely used outside the startup universe. Also, venture financing, lean startup methodology and agile product development themselves are enticing topics to learn more about.

Table 1: Startup vocabulary.

NAME	ABBREVIATION/SYNONYMS	MEANING
ACCELERATOR	-	In an accelerator, a Seed investment is made in return for equity and usually between \$15K - \$50K. Startups are admitted in classes and work in groups. They are generally given a deadline to complete intensive training and iteration (typically 1 week to 6 months). Startups end an accelerator program with a Demo Day in which they pitch to investors.
ANGEL INVESTOR	Angels/business angels	Individual who provides a small amount of capital to a startup for a stake in the company.
BOOTSTRAPPING	-	A company is bootstrapped when it is funded by an entrepreneur's personal resources or the company's own revenue. Evolved from the phrase "pulling oneself up by one's bootstraps."

⁴ http://fundingsage.com/entrepreneur-dictionary-for-startups/; http://fi.co/glossary & http://www.techrepublic.com/article/glossary-startup-and-venture-capital-terms-you-should-know/



^{2.} https://en.wikipedia.org/wiki/Lean_startup



-	An innovation or technology is disruptive when it "disrupts" an existing market by doing things such as: challenging the prices in the market, displacing an old technology, or changing the market audience.
-	An organization that helps develop early stage companies, usually in exchange for equity in the company. Companies in incubators get help for things like building their management teams, strategizing their growth, providing office space. Longer term, 6-18 months.
- (agile development)	Iterations are short time frames to deliver sets of features. Each iteration generally contains activities such as analysis, design, development, and testing.
MVP	A low-cost prototype that measures if an idea attracts interest.
-	The act of a startup quickly changing direction with its business strategy. For example, an enterprise server startup pivoting to become an enterprise cloud company.
-	Startups in the growth phase (market validation, exponential growth, typically received venture capital investment, active in more than one country)
-	Early stage financing for startups. Usually the first official round of investment.
SaaS	Software as a service. A software product that is hosted remotely, usually over the internet (a.k.a. "in the cloud").
-	Used to describe in which development phase a startup is (discovery, validation, efficiency, scale) according to Startup Genome Report. ⁵
-	Small company with an innovative product or services, enabled by tech, with a scalable business model and global ambitions
-	Used to describe a company that is worth at least a billion dollars and still privately held.
VC	Startup or growth equity capital or loan capital provided by private investors (the venture capitalists) or specialized financial institutions (development finance houses or venture capital firms). Also called risk capital.
	development) MVP - SaaS - - - - - - - - - - - - -

 $^{3. \}quad ^{5} \ https://s3.amazonaws.com/startupcompass-public/StartupGenomeReport1_Why_Startups_Succeed_v2.pdf$





3. How to conduct the mentoring sessions

3.1 Preparation

Startup companies are in general short of time as their agility determines success or failure. Make sure that the content is relevant to their needs, e.g.: do not talk about energy-efficient production extensively if none of the participating companies work on a physical product (hardware or consumer goods).

In general, co-working spaces, incubators and accelerators have a main community organizer person who oversees events and training agenda. By contacting him/her, you can arrange a session and a room with the necessary equipment. It is also recommended to send an invitation in advance with a detailed agenda to distribute among the startups. Use also the questionnaire to collect feedback developed in WP2 by CentERdata.

3.2 Format

The presentation takes between 45-60 minutes to go through. A 15-minute intro time and another 15 minutes for questions should be calculated, thus altogether 1.5 hours to be allotted for a session.

Ideally, between 10-20 startups would attend a session. With a higher number, it becomes more difficult to conduct the mentoring efficiently. Of course, individual cases are possible, e.g.: there is not enough interested startup in one incubator, whereas in another one the session is oversubscribed. Normally the mentoring information session is suitable for a broader audience as well, yet to apply a more personalized approach, smaller groups are preferred. Personal approach in general is expected to yield better conversion to become engaged users of the START2ACT platform.

3.3 Setup

Energy efficiency is about reducing cost, and by doing so, saving the environment, yet our approach is to become energy efficient and sustainable in a way which maintains the comfort of your employees and clients who visit your office. The lack of comfort in the office can result in a sizeable productivity loss.⁶

Introduction

The first step is a round of introduction: name, company, domain (see: verticals in Appendix) and whether they use energy in their operations extensively, they work from co-working or own office and if they are aware of using energy for their operations (e.g. footprint of data warehouses). It helps to steer the mentoring in a direction which is useful for all participants.

- » Introduce yourself: who are you, which company you work for and in what vertical your startup is active
- » Office: where do you work from? Co-working, rented space, own office or remotely?
- » Energy use: how much energy do you consume in your office and operations?

^{4. 6} https://eit.europa.eu/newsroom/climate-kic-new-energy-saving-system-estimates-productivity-loss-due-high-indoor-co2-levels



Training

The Startup Training Kit provides the baseline of the session with recommended order of topics. Q&A can be inserted and topics which prove irrelevant to the respective audience should be skipped. If all the participants are working from a shared office space, then it is recommended to ask whether they would like to go through all the variations of office renting. Similarly, if the audience is mostly made of energy-related companies, then the first part should be shortened – chances are they are already well aware of the importance of energy savings.

On-site feedback form

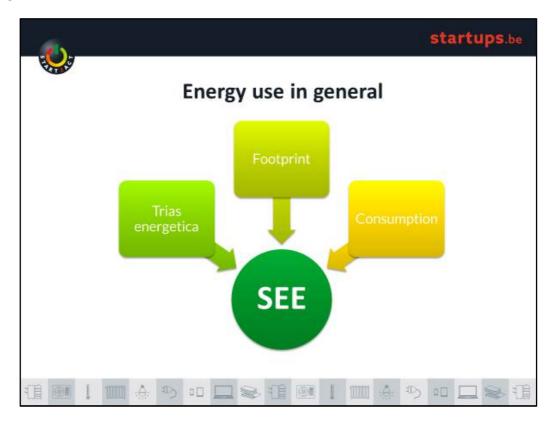
Not only to collect direct feedback, but also for the reason of email address collection (with attention to given consent!) and follow-up activities. The feedback form aims to collect feedback on the session, an example is available in the Appendix.

Follow-up offering

Depending on your availability and capacity, you can offer follow-up services for the participants on the top of the START2ACT online offering.

4. Energy use in general (SEE)

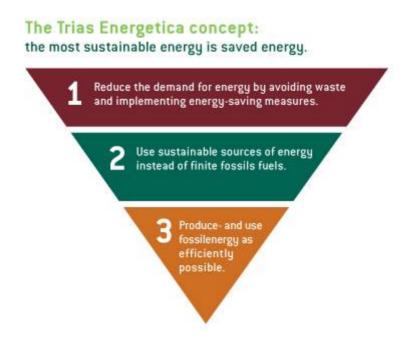
The goal is <u>to understand energy consumption</u> and its everyday implication. Awareness raising of the consequences of extensive energy use, and conveying messages that you can make steps on individual and company level as well to reduce harmful effects (long-term thinking). The point to make is emphasizing energy awareness and its influence on well-being.





Trias energetica⁷

The method was developed by Delft University, and it aims to promote a smart approach to climate neutrality. Following its logic, first, we need to limit energy demand through energy saving. Second, renewable sources should be used to meet the remaining energy demand. Only then should fossil fuels be used, as efficiently and cleanly as possible.



In trivial terms:

- you should limit energy use;
- » if you need energy, you should use green energy;
- if you cannot, then use only the classical energy, but in a sustainable way

Carbon footprint

A carbon footprint is historically defined as "the total set of greenhouse gas emissions caused by an [individual, event, organisation, product] expressed as carbon dioxide equivalent.⁸ Regarding Belgium, recent data shows:

Total CO2 emission: 141.00 m t

» Belgium per capita: 12.36 t

» Compared to Europe per capita: 8.23 t

^{6. 8} https://en.wikipedia.org/wiki/Carbon_footprint



^{5. &}lt;sup>7</sup> http://www.eurima.org/energy-efficiency-in-buildings/trias-energetica

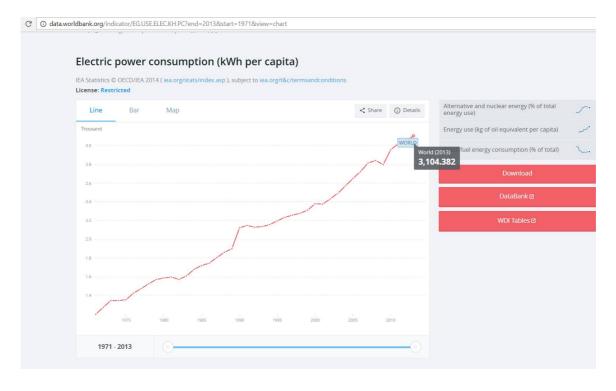
Important: the point of talking about carbon footprint is <u>not</u> to make participants feel guilty or uncomfortable. The goal is to raise awareness of our energy footprint, therefore to trigger a behavioural change when companies are making everyday decisions, e.g. about business trips. Calculator: http://www.travelmath.com/flight-emissions/

For instance, most of us would consider twice participating in conferences or meetings overseas - unless deemed inevitable, if we knew the impact it had on the environment.⁹

Consumption data on energy (country-specific)

In many cases, energy tends to be an abstract phenomenon when it comes to grasp the sheer volume of energy used by individuals and industry. For instance, Belgium doubled its per capita electric power consumption in the last 40 years, from 3127 to 7967 kWh. Most recent data on Belgium can be found here: https://www.iea.org/media/countries/Belgium.pdf

Electric power consumption measures the production of power plants and combined heat and power plants less transmission, distribution, and transformation losses and own use by heat and power plants.¹⁰

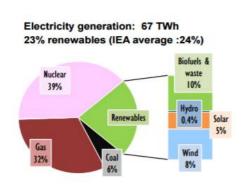


Energy consumption in Belgium

^{8. 10} http://data.worldbank.org/indicator/EG.USE.ELEC.KH.PC?end=2013&start=1971&view=chart



^{7. 9} http://www.bilans-ges.ademe.fr/en/accueil/contenu/index/page/calculation_methods/siGras/0



"In recent years, Belgium has made clear progress in increasing competition in the electricity and natural gas markets. It has also managed to reduce the use of fossil fuels and increase the use of renewable energy. The country's economy is becoming less energy intensive. Belgium has excellent gas transport infrastructure, and its gas market is well-integrated with those of its neighbours. The country's emergency oil stock levels are also high.

As in all IEA member countries, a major challenge for Belgium is to decarbonise the economy while ensuring security of supply and affordability of energy. A long-term approach is required, and, given that responsibility for energy policy is divided between the federal and

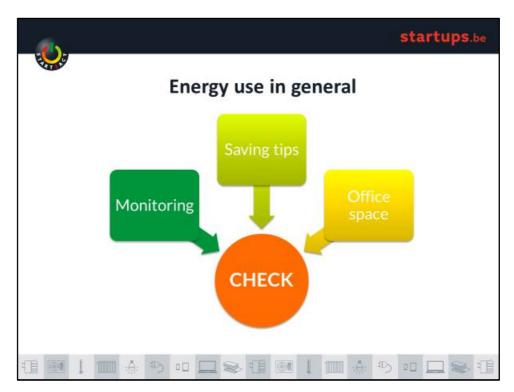
regional governments, the authorities must work decisively together to form a national energy strategy."11

Figure 1 https://www.iea.org/countries/membercountries/belgium/

5. Measuring energy use

(CHECK)

"Every day we are paying more for energy than we should due to poor insulation, inefficient lights, appliances, and heating and cooling equipment - money we could save by investing in energy efficiency." — **Bernie Sanders**



Energy monitoring

^{9. 11} https://www.iea.org/countries/membercountries/belgium/





How to measure the energy you use as an individual and a company?

Several tools and services are at disposal to make conscious decisions regarding monitoring the use of energy by individuals and companies. It is advised to make a difference between individual consumption, the energy operations consume (office) and production or manufacturing.

- » Individual level: energy saving tips
- » Company level: energy use and bills for renting office space vs. co-working or remote working
- » Production energy monitoring

Sources to read:

http://www.iea.org/publications/freepublications/publication/EnergyEfficiencyIndicatorsHighlights_2016.pdf

Tools and checklist: https://www.energinvest.be/tools

Example: Tool for managing your energy consumption at home and at work

<u>PEAKapp</u> is an app on your phone or tablet that helps you save energy and control your household consumption. This innovative app will enable energy retailers to forward low-price, green, low-carbon energy from the spot market to households.

Pro tip: look up and offer local startup solutions! (3) e.g.: BE – smappee

Energy savings vs. other costs

How does your energy consumption and potential savings compare to your other costs (e.g.: marketing)?

By introducing relatively simple measures, which will ideally become habits, a significant amount of cost reduction can be realized, yet it is sometimes overlooked by managers. Research shows that x % saving on energy would result in x EUR in savings.

Exercise:

Once the amount is determined based on the average size of companies attending (if there are bigger companies active in manufacturing, numbers should be adjusted to provide a realistic comparison), ask the startups what that money could buy them in terms of marketing/sales/HR.

Examples:

- » Marketing: How many page views, AdWords can you buy for x EUR?
- >> Team lead: Will you be able to hire a job student for half a year?
- » Operations: Would it cover the cost of office perks like free drinks and fruits for 6 months?

Co-working or own-office?

In this session, different options will be discussed, based and tailored to the answers received during the introduction. If most participants are working from co-working, then discussion should be about whether they are planning to move to an own office, and if they do so, then what aspects they should consider in the offers. On the



other hand, if most of them work from their own offices, discuss the energy saving conditions, e.g.: do they have metering separately or they pay a lump sum; how much influence they have on how the rooms not in use are heated/ventilated/lit, etc. ¹²

In all scenarios, a pros and cons analysis would provide an overview of the different options. Usually a combination of methods will result in the most suitable and energy efficient option customized for the companies. There is no best or worst option, it is important to highlight as well, yet the goal of the exercise is to inform the participants about the wealth of possibilities, and how they should consider the rental cost.

Sample questions from the facility owner/property manager:

- » How the utility bills are comprised?
- » Is there an option to install individual metering?
- » How are the common spaces are used/metered?
- » Does the building own energy certificates?
- » What is the level and state of insulation?
- » Check also the location of the individual office: windows location, daily sunshine, neighbouring offices
- » Is it considered to apply co-investment options and produce the building's own energy (Energy Performance Contract)?

Scenarios with advantages and points to consider:

Working from home, remote work:

PROS	cons
the most energy efficient option	Can increase energy consumption at home
no commuting	Isolation, lack of team communication
no need for rental or ownership	"no basecamp", extra logistics for team activities or receiving clients

Co-working space – flexible desk

PROS	CONS
Flexible desk	No fixed office space or desk
Community feeling	Less options to go "silent"
Easy to calculate the costs, no overhead of office management	No influence on energy prices paid and on the state of the common spaces

^{10. 12} https://www.wellcertified.com/





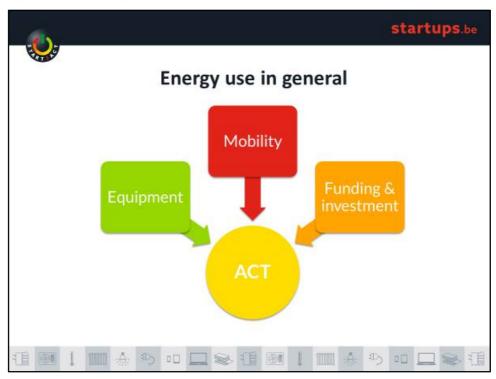
Renting office space – with common spaces (multi-tenant buildings)

PROS	CONS
Fix office space and desk	Less flexibility, more expensive
Team can work together	Closed or open floor plan can cause debates
Easy to calculate costs & overhead	Overhead on utilities needs extra calculations -> fixed price or metering?*

^{*}Energy performance contract implemented?

If you own your energy bill, this website can help (BE): http://monelectriciteverte.be/fournisseur/lampiris/

6. Energy saving actions (ACT)



Equipment sustainability & procurement





Everyday tips for energy savings¹³

- » Switch off all non-essential lighting out of business hours to save 10% of lighting costs
- » Switch off all PCs, laptops and monitors when not in use to save 5% of energy costs
- Experiment with switch-on and switch-off times for heating and air conditioning and switch off before the end of the working day - to save 20% of heating and cooling costs
- Ensure you use energy-efficient lighting in your buildings. The current crop of LED bulbs is the most efficient, followed by fluorescent lights. These bulbs are almost 90% more efficient than traditional bulbs and the cost has followed suit in recent years.
- » Controlling heating and cooling systems by just a few degrees can have a dramatic effect on your costs. Turing a thermostat down by just one degree can save £100 per year for a small shop.
- » If you can, change desktop computers for laptops, as they use 85% less power.

Please, add here as many tips as you are using in other trainings!

Pro tip:

» Go on holiday to a Nearly Zero Energy Hotel: <u>Nearly Zero Energy Hotels</u> is helping hotels in Europe to become more energy efficient and achieve Nearly Zero energy targets. Hotels joining this initiative show how the hospitality sector can reduce greenhouse gases and the energy consumption of its buildings. See the 16 pilot hotels that have taken action!¹⁴ ②

Co-investment & funding (country-specific!)

Energy investment used to be costly which required planning and expertise. As renewables started to gain popularity, local governments allocate more diversified funding and subsidies to energy efficiency. Co-investment in producing one's own energy is becoming available to a higher number of companies, also in the form of energy cooperatives (see: REscoop). In general, return on investment in energy efficiency methods takes years, therefore the best time of investing is "the earlier is the better". It is also useful to research the available options on offer in the respective region as local peculiarities in sustainable energy productions should always be considered.

In this session, it is recommended to research and use country-specific options for funding and co-investment possibilities. The goal is not to provide free of charge funding consulting, rather to raise awareness about local opportunities to consider.

Action: please, refer to your local data and refer the participants to the respective resources.

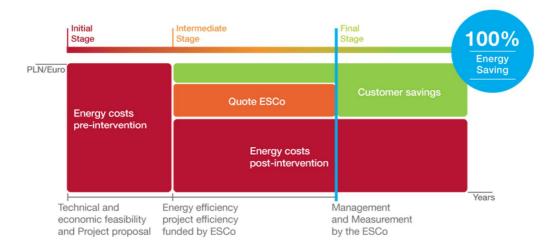
Below you can find examples from Belgium which can serve as a base and can also be shown as inspiration, yet the local examples will create real impact.

^{12. 14} https://ec.europa.eu/easme/en/news/5-ways-save-energy-2017

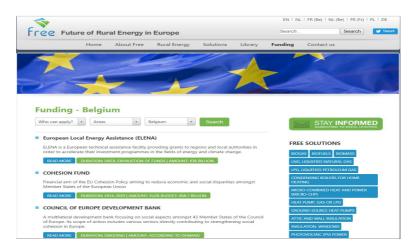


^{11. 13} https://www.virginstartup.org/how-to/how-startups-can-reduce-their-energy-costs





Funding opportunities in Belgium (and in other countries) available here.



Belgian subsidies for SMEs in energy efficiency: http://www.vlaio.be/themas/kmo-portefeuille

Co-investing:

- » https://rescoop.eu/get-your-projects-financed
- » https://www.ecconova.com/



In recent years, Energy Performance contracts have gained momentum as they allow the facility owner and its tenants to use funding options in which future (guaranteed) energy savings reimburse the initial investments, often in a budget neutral manner.¹⁵

Mobility as a way of saving

The economic recession led to reduced pollutant emissions by lowering transport demand. Transport is still responsible for 25% of EU greenhouse gas emissions, and contributes significantly to air pollution, noise and habitat fragmentation. To save energy, there are simple ways to start, for example by looking at the way the employees commute to work. Use of public transport instead of car (incentivizing by providing perks), checking the options of commuting by bike (bike-sharing opportunities, owning a fleet of office bikes), or if none of these options work in the given circumstances, a well-organised and supported carpooling system can reduce the energy emission significantly. Introducing the option of remote work whenever the workload allows, or incentivizing the use of co-working spaces or common spaces to work can also reduce cost, and could provide benefits for the employee (more freedom over their time).

- » car sharing incentives
- » negotiating deals with oil companies
- » location of the office should be close to train stations (public transport)
- » electric bicycles

^{14. 16} http://www.eea.europa.eu/soer

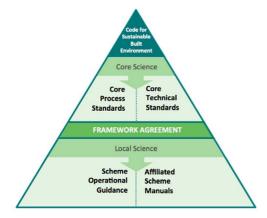


^{13. 15} https://www.energinvest.be/insights/how-to-implement-energy-performance-contracts-in-multi-tenant-building-pools-using-the-smartepc-model

Here you can find a calculator which shows the impact of commuting on the environment: https://co2.myclimate.org/en/car calculators/new

BREEAM¹⁷ (Building Research Establishment Environmental Assessment Methodology) is also good indicator for

sustainability of buildings (materials and energy) in combination transport and location.



Green accelerators & incubators

Smart cities symbolize a new way of engagement between the city itself and its citizens. Smart solutions in mobility, logistics, transportation, energy or education are set to reshape the way we live in our cities. Transformation is currently happening as more and more support initiatives step into the scene to create communities of the new wave of collaborative economy. Therefore, if you are engaged in the topic and show interest in smart solutions, here is a list of available

incubation/acceleration programmes and supporting initiatives to consider. Even if your product does not fit into these categories right now, chances are that you will learn new, innovative methods and get to know ideas which can positively influence your mission as well. Vice versa, exploring potential collaboration opportunities with smart cities is a proven way to create impact by cross-pollinating different sectors and ideas.

Initiatives in Europe and in the participating countries

Europe-wide:

- » Rockstart: https://www.rockstart.com/accelerator/smart-energy/
- » Climate-KIC: http://www.climate-kic.org/
- » Startupbootcamp: https://www.startupbootcamp.org/accelerator/smart-transportation-energy/

COUNTRY	PROGRAMMES
BELGIUM	Watt Factory, GreenBizz, GreenVille
BULGARIA	LauncHub, <u>Cleantech Bulgaria</u> , Eleven
CROATIA	ZIP
CZECH REPUBLIC	Startup Yard, StarCube
HUNGARY	Traction Tribe, Digital Factory, Hiventures, iCatapult, Design Terminal, Oxo Labs, CEED Tech HU
POLAND	GreenEvo, Starter Rocket, Bitspiration Booster, StartupHub Warsaw, AIP Seed Capital, hub:raum, Huge Thing

^{15. 17} http://www.breeam.com/





ROMANIA	Innovation Labs, Connect Accelerator, Spherik, Simplon, TechHub
SLOVAKIA	The Spot, CEED Tech, RubixLab
THE UK	Bethnal Green Ventures, Digital Greenwich, EcoMachines Incubator, Catapult, Collider, Ignite

In this session, the goal is to inspire startups to participate in acceleration programmes or simply to get to know options available in the given country. As a disclaimer, specific, energy-focused programmes are not available in all participating countries, yet accelerators and incubators are a good starting point to acquire more information. If there is no energy-specific programme available in your country, please, refer to programmes which are directed to SMEs but can be applied to startups or point out the European programmes.

7. Appendix

Startup verticals

Summary table of commonly used terminology of startup verticals (non-exhaustive):

VERTICAL	WHAT	
3D Printing	3D printing is any of various processes used to make a three-dimensional object	
Accounting	Accounting is the measurement, processing and communication of financial information about economic entities	
AdTech	Describes the technology and service that places advertisements on web sites.	
Aerospace	Aerospace is the human effort in science, engineering and business to fly in the atmosphere of Earth (aeronautics) and surrounding space (astronautics).	
AgriTech	The agricultural tech industry uses specific technology to improve global agricultural practices.	
Automotive	The automotive industry is a wide range of companies and organizations involved in the design, development, manufacturing, marketing, and selling of motor vehicles.	
Business Services	Specialized services provided by one company for another, supporting their businesses the way they request it.	
Construction	Construction is the process of creating and building infrastructure or a facility.	
Consulting & Services	Companies providing professional advice or expertise that satisfy the needs of customers in a certain industry field.	
Consumer Services	Consumer services refers to the formulation, deformulation, technical consulting and testing of most consumer products, or other services specifically for consumers.	
Cybersecurity	is the protection of information systems from theft or damage to the hardware, the software, and to the information on them, as well as from disruption or misdirection of the services they provide	
Data & Analytics	Data analytics is the science of examining raw data with the purpose of drawing conclusions about that information. It is used in many industries to allow companies and organization to make better business decisions.	





Design	Design is the creation of a plan or convention for the construction of an object or a system
EdTech	Educational technology is the effective use of technological tools in learning.
Energy & CleanTech	Energy & Cleantech focuses on innnovative ways to generate, save and distribute energy, while keeping the impact on the environment as small as possible.
Entertainment	Entertainment is a form of activity that holds the attention and interest of an audience, or gives pleasure and delight.
FashionTech	Using technology in the fashion industry
FinTech	Is an industry based on using software to provide financial services.
FoodTech	Using technology in the food industry
Gaming	Gaming is the act of playing games.
GeoTech	Geotech is the application of scientific methods and engineering techniques to the exploitation and utilization of natural resources (as mineral resources)
GovTech	Technology solutions for state & local governments
HealthTech	Application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives.
Hospitality	Hospitality refers to the relationship between a guest and a host, wherein the host receives the guest with goodwill, including the reception and entertainment of guests, visitors, or strangers.
HRTech	Human Resources technology
Information Technology	Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise.
Internet of Things	The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors, and connectivity to enable objects to exchange data with the production, operator and/or other connected devices based on the infrastructure
Life Science	The life sciences comprise the fields of science that involve the scientific study of living organisms
Logistics & Supply Chain	Logistics is the management of the flow of things between the point of origin and the point of consumption in order to meet requirements of customers or corporations; A supply chain is a system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer.
Manufacturing	Manufacturing is the production of merchandise for use or sale using labour and machines, tools, chemical and biological processing, or formulation.
Maritime	Maritime industries comprise companies whose activities supply innovative products and services related to the traditional maritime sector.
MediaTech	Technology related to Media
MICE	Meetings, incentives, conferences, and exhibitions - type of tourism in which large groups, usually planned well in advance, are brought together for a particular purpose.
Mobile Technology	Industry consisting of anything that has to do with mobile devices, smartphones, mobile operating systems





Mobility	The model of moving a person from point A to B, ie using cars, buses, etc
MusicTech	Technology related to Music
Publishing	Publishing is the process of production and dissemination of literature, music, or information
Real Estate	Real estate business is all about the business of buying, selling, and renting real property.
Retail	Retail is the process of selling consumer goods and/or services to customers through multiple channels of distribution to earn a profit
Social Impact	Social impact occurs when one tries to affect another's emotions, opinions or behaviors by doing something particular (by starting a movement, campaign)
Social Networks	A social network is a social structure made up of a set of social actors (such as individuals or organizations) and a set of the interaction between these actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures
Software & Computer Services	This represents all manufacturers and providers of computer software, SaaS, and other computer services.
SportTech	Technological avancements in sports
Hardware	The Hardware industry consists of companies engaged in assembling and manufacturing (computer) hardware.
Telecom	Telecommunication occurs when the exchange of information between two entities (communication) includes the use of technology.
Travel	Travel is the movement of people between relatively distant geographical locations, and can involve travel by foot, bicycle, automobile, train, boat, airplane, or other means, with or without luggage, and can be one way or round trip.
Utilities	A public utility (usually just utility) is an organization that maintains the infrastructure for a public service: The term utilities can also refer to the set of services provided by these organizations consumed by the public: electricity, natural gas, water, and sewage. Telephone services may occasionally be included within the definition.