Business Incubators
Definition, Function and Best Practices

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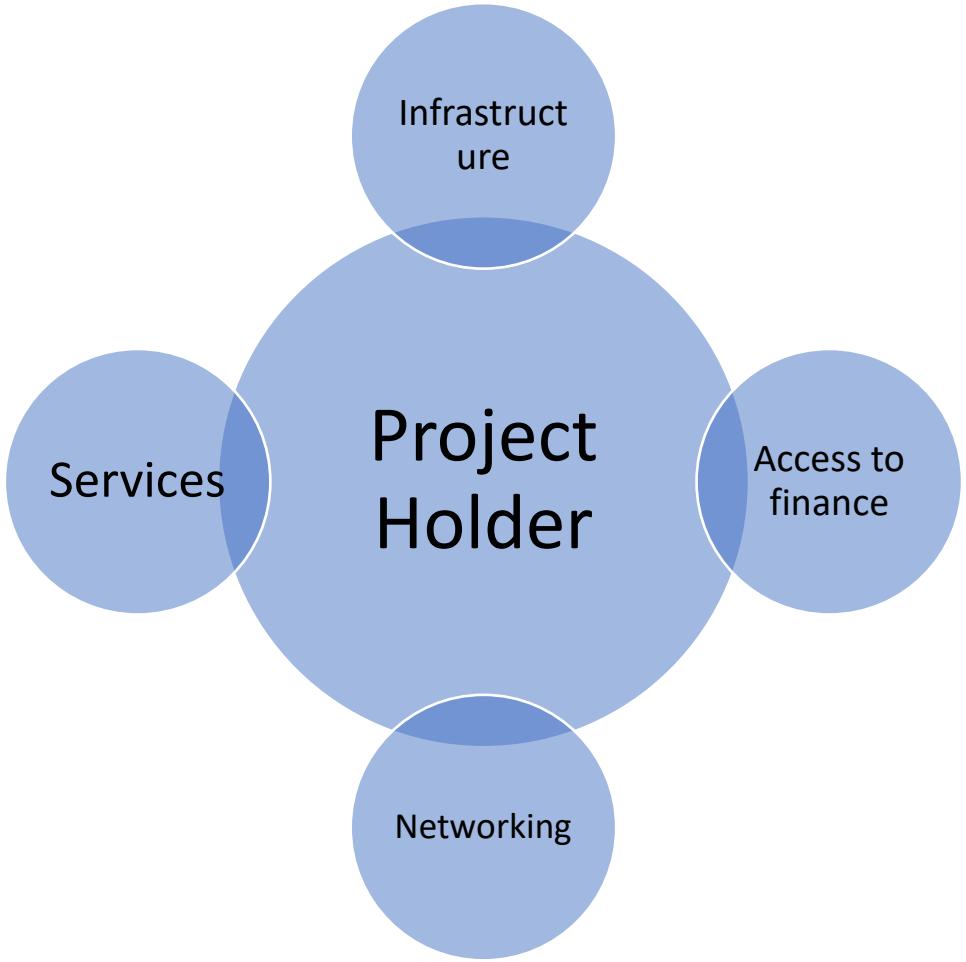
Definition and 4 functions

"Business incubators nurture the development of entrepreneurial companies, helping them survive and grow during the start-up period, when they are most vulnerable. Their programs provide client companies with business support services and resources tailored to young firms. The most common goals of incubation programs are creating jobs in a community, enhancing a community's entrepreneurial climate, retaining businesses in a community, building or accelerating growth in a local industry and diversifying local economies."

Source: National Business Incubation Association

Before business creation, and up to 3,5 years after creation



Infrastructure

- Most incubators offer accommodation facilities and may ask for the payment of rent by beneficiaries.
- Beneficiaries have a workspace and access to internet, phone, photocopies, meeting rooms and a physical address.
- Some incubators can also provide industrial equipment such as agro-food processing / packaging equipment, laboratories for testing, etc.
- Fixed incubation period (6 months – 2 years) + extension period
- Pre-incubation and post-incubation periods are recommended as well

Services (desirable)

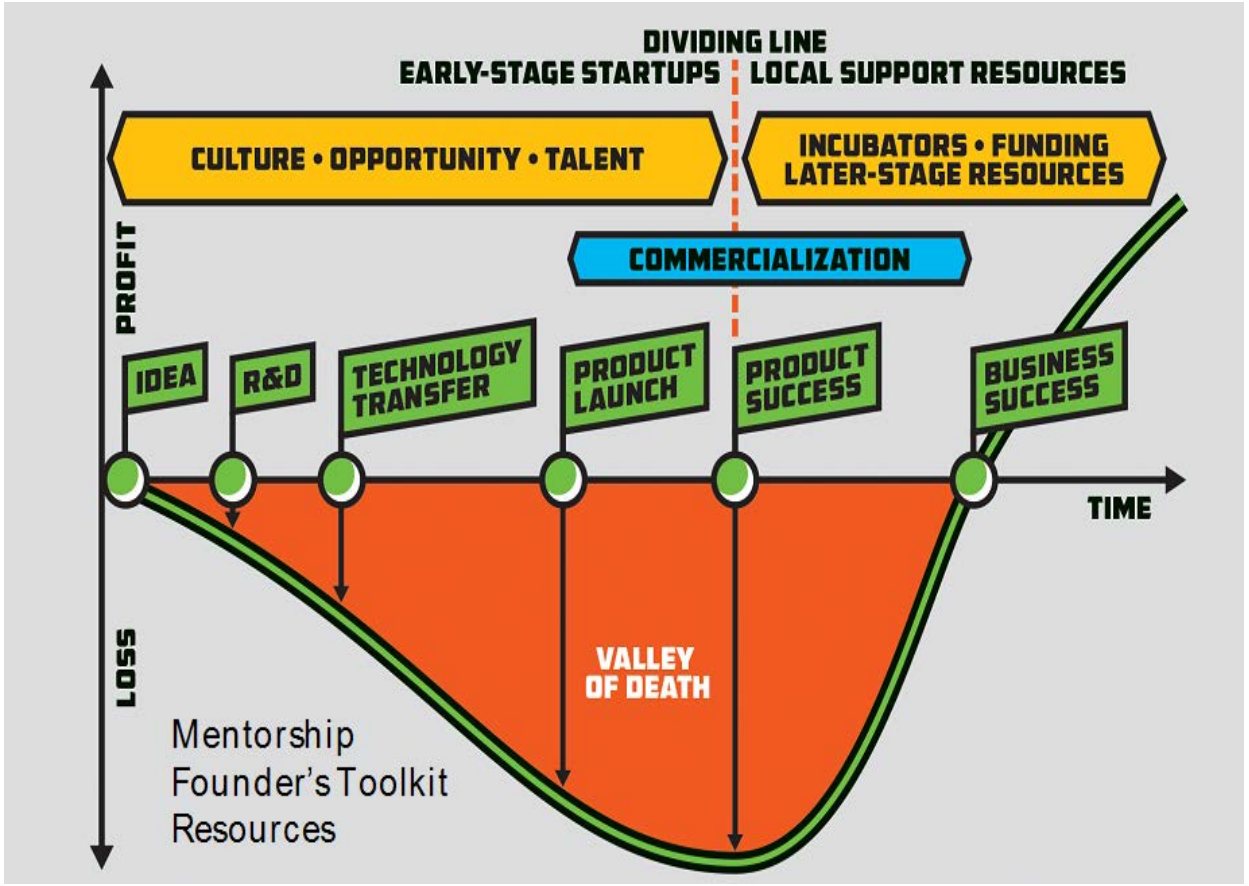
- ❑ Legal services
- ❑ Accounting Services
- ❑ Marketing & Sales services (Export Support)
- ❑ Business planning & modelling
- ❑ Business registering facilitation
- ❑ Market studies
- ❑ ICT training (website development)
- ❑ Sector specific services (technical training) Coaching or mentoring services
- ❑ Trainings (hard and soft skills)
- ❑ Technology and equipment identification services Specific technical expertise

Networking

- ❑ Identify potential clients
- ❑ Identify experts / lawyers / consultants
- ❑ Identify new technologies
- ❑ Meet universities, R&D, government agencies
- ❑ Meet investors
- ❑ Knowledge-sharing
- ❑ Best practices exchanges
- ❑ Networks of other business incubator
- ❑ Clustering (market linkages)

Access to finance

- The "**valley of death**" refers to a period, which can last 3 years, during which start-ups have a high probability of "dying" because of the lack of sufficient financial means. The depth of the "valley of death" represents the company's debts and its extent the time it takes to transform its concept into commercial success.
- **Financial needs** : proof of concept, prototype development, production and commercialization costs
- **Sources of finance**: microfinance, banks, venture capital, private equity, business angels, love money, crowdfunding, public programmes (gov, donors)
- **Financial instruments**: grants, loans, equity



Incubators types

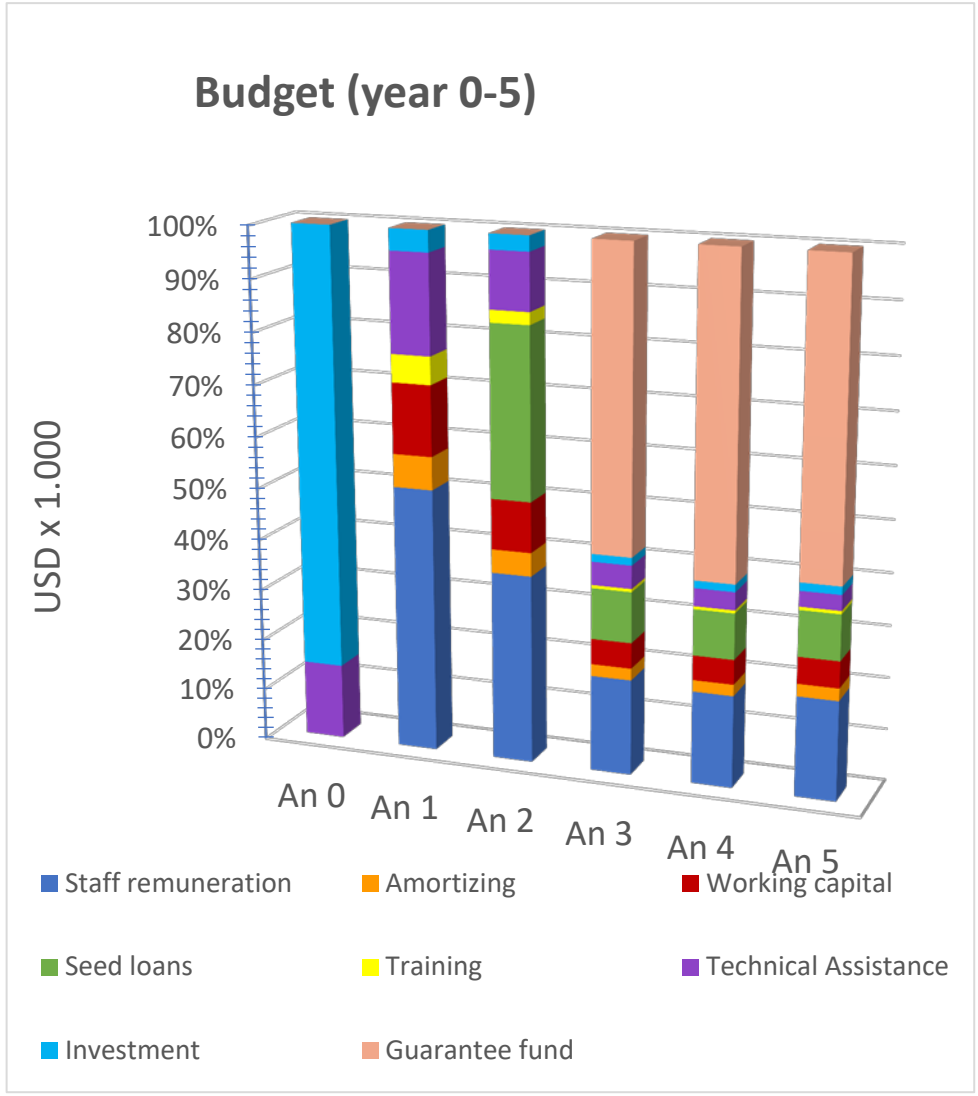
Ownership	Nature	Sector	Objectives
Public	For profit	Focus on one sector	Promotion of a specific category
Private	Not for profit	Multi-sector	Local economic development
PPP		Technologic	Tech transfer
Academic			Jobs creation
NGO			Profits maximisation

Best practices

*1- Start with a **feasibility study***

Content of a typical feasibility study:

- *VC analysis (opportunities for local / export)*
- *Private Sector Development strategy (gov and donors)*
- *Location choice*
- *Incubation demand evaluation*
- *Selection of the type of incubator*
- *Strategic planning and definition of services*
- *Organizational and operational setup*
- *Budget*
- *Partnerships (universities, NGO, donors)*
- *Selection criteria*
- *Impact (economic, social, food security, etc.)*
- *Risk analysis*



Best practices

2 – Manage a BI like a company

- *Identify a **champion** from the private sector*
- *Establish a **Board of Directors** for strategic planning*
- *Recruit a **business-oriented staff** for operations*
- ***Set targets, and adopt a monitoring & evaluation system, deliver an optimal set of services***
- *If partnership (for instance a PPP), an **Audit Committee** should be added to the structure*
- *Ensure **financial sustainability** through rents and stream of revenues (before, during and after incubation)*
- *Encourage **adaptability** of BI*
- ***Selecting suitable tenant firms***
- ***Link incubatees to investors***

Best practices

3 – Linkages and partnerships

- *A strong partnership with a university (or higher education institution) should be secured, aiming at ensuring that critical mass of project holders can be sourced for the BI, and R&D can be done*
- *Partnerships with local government is also critical for improvement of business climate*
- *Partnership with civil society organizations also increase community's engagement (especially in countries with high informality)*
- ***Involvement of investors is critical to success, they should be involved in the selection / follow-up of incubatees***
- *Linkages with other incubators must be developed for knowledge sharing*

BI in Science Parks-Technopoles

- Frequently the EU gets approached to support/study a **Science and Technology Parks- STP (Technopôles or Technopoles)**, which includes a BI, business centre, technology/research centres and university or other academic institutions; plus space for setting up other firms/buildings.

- All STP-Technopoles have **one or more BI**, which follows same best practices as mentioned.

- The STP is an "umbrella" organisation managing some of the above "structures", and the **BI can be within the STP or separately-managed.**

- STP business models are larger versions of BI business models, but essentially have same components in their income (rent plus services and projects) and costs (staff, maintenance, IT, operational depreciation, etc.) and a margin for sustainability.. As they are usually non-profit structures.

STP in Africa

(Corporate Solutions-Tenstep with IASP, WTA data)

Science and Technology Parks In Africa

Country	Name	Webpage	Type	Status	Sectors	Surface Area	Member	Managed/Parnertship
Bostwana	Botswana Innovation Hub	Bostwana Innovation Hub http://www.bih.co.bw/bih-profile/	ST Park	Working	ICT, Clean technologies, Energy and Environmental,Biotechnology,mining technologies,indigenous knowledge systems	57 Ha	IASP	Ministry of Tertiary Education Research Science and Technology
Egypt	Smart Villages	www.mcsrta.sci.eg				250 acres; 101 Ha	Non	Ministry of Industry and Commerce
Ivory Coast	Mahatma Gandhi IT and Biotechnology Park	http://www.vitib.ci/fr/parc-technologique		Working	TIC, Biotechnology	644Ha	IASP	Managed by VITIB SA, a joint venture between the state of Cote d'Ivoire and private partners

STP in Africa

(Corporate Solutions-Tenstep with IASP, WTA data)

Science and Technology Parks In Africa

Country	Name	Webpage	Type	Status	Sectors	Surface Area	Member	Managed/Parnertship
Kenya	Konza Technopolis	http://www.konzacity.go.	Today Bussiness Innovation center. It will expand to STPark	The horizontal infrastructure, to be completed by 2021 will involve the first 170-hectare phase	ICT	5000 Square meters	IASP	
	University Of Nairobi Science and Technology Park	http://uonbi.ac.ke/	Researche &Science Park		ICT & Communications Manufacturing and Automation Technologies Services for Business and Industry Software Engineering Pure research	200 Square meter	IASP	
	Nairobi Industrial and Technology Park (NITP)	p://nitp.ac.ke/about-us/ni	ST Park		Agro-processing;Agro-Machinery;Electric and electronics;Metal;Bio-technology;ICT;Packaging	NI		Jomo Kenyatta University of Agriculture and Technology ;Ministry of Industralization&enterprise development;SRISTI Society for Research and Initiatives for Sustainable Technologies and Institutions
Namibia	Namibia Business Innovation Centre (NBIC)	http://nbii.nust.na/	University /Innovation Center	Working			IASP (Full member)	
Nigeria	Abuja Technology Village Free Zone Company	www.abujatechnologyvillag	ST Park		ICT & Communications	702 Square meters	IASP (Full member)	
	Lion Science Park	://www.lionsciencepark.c	ST Park	Working	Agriculture and Forestry Biotechnology Computer Science and Hardwares ICT & Communications Micromachines and Nanotechnology	NI	IASP (affiliated)	University of Nigeria, Nsukka, Enugu state. Ministry of Science and Technology

STP in Africa

(Corporate Solutions-Tenstep with IASP, WTA data)

Science and Technology Parks In Africa

Country	Name	Webpage	Type	Status	Sectors	Surface Area	Member	Managed/Parnertship
Madagascar	Technopole du Toamasina	http://mongbrice.free.fr/Exo/univtoa/www.univ-toamasina.mg/fac_gest_eco.html	ST Park (three University Centers)	Working	Comunication, Linguistic ,Ethnology	NA		
Morocco	Technopark Morocco	http://www.technopark.ma/	Science Park	Working	Energy Environment ICT & Communications Services for Business and Industry Software Engineering	32000 Square meters.3,2 Ha	IASP (Full member)	Moroccan Information Technopark Company (A public limited company);Attijariwafa bank, La Banque Centrale Populaire , la Caisse de Dépôt et de Gestion et la BMCE Bank
Mauritius	Montresor Smart City	http://www.montresor.mu/home#1	Area of Innovation	Developing		NI	IASP (affiliated)	
Senegal	Technopole de Dakar		Project phase (since 2009)			194,5 Ha		
	Dakar Technopolis (DTP)			Project				
	Parc des Technologies Numeriques Diamniadio	http://www.ptn.sn/		Under construction				
Rwanda	Kigali ICT Park (KICT)		Project					
South Africa	Technopark Stellenbosch	http://www.technopark.co.za/location-winelands-stellenbosch	STPark	working				InnovUS is the technology transfer company of Stellenbosch University
	Highveld Techno Park (HTP)							
	Softline Technology Park (STP)							
	Innovation Hub Science Park (IHSP), Pretoria							
	Coega Technology Park (CTP), Port Elizabeth							

STP in Africa

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Science and Technology Parks In Africa

Country	Name	Webpage	Type	Status	Sectors	Surface Area	Member	Managed/Parnertship
Sudan		http://roadmap-group.com/home/			Advanced Services in Technology Transfer			
Tunisia	Borj Cedria Techno Park	https://ecopark.tn/	ST Park	Working	Cultural Industry and Humanities	73 Ha	WTA	
	ElGazala Tecnopark	http://www.elgazala.tn/	ST Park	Working				Non-administrative Public Establishment (EPNA) under the supervision of the Ministry of Communication Technologies and Digital Economy.
Tanzania	The Nelson Mandela African Institution of Science and Technology (NM-AIST)	http://www.nm-aist.ac.tz	ST Park	Working	Energy,Manufacturing and Automation Technologies,Services for Business and Industry	1.409,9248 Ha (3.484acres)	WTA	
Zimbabwe	National University of Science and Technology Technopark (NUST)	http://www.nust.ac.zw/index.php/administration/vice-chancellors-office/technopark	NUST-Technopark is a Unit of the National University of Science and Technology (NUST)	Working	Business & ICT incubation	NA		Goverment
	Harare Institute of Technology	https://www.hit.ac.zw/	ST Park (three University Centers)	Working	Food Processing Technology,Industrial & Manufacturing Engineering ,Electronic Engineering	NA	WTA	

Examples of BI projects supported by EU with External Aid

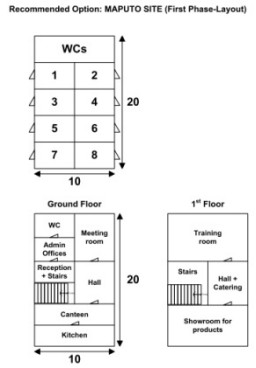
Romania 6 Regional BI (2002- 2005)

- **Scope:** Design, Reconstruct buildings and procure equipment, Manage for 2 years and Transfer to Local authorities 6 mixed-used BI (initially called WorkSpaces by World Bank) in 6 mining towns, reusing mining administration buildings. The entrepreneurs were 50% agro, 30% manufacturing (wood, mechanics, textile) and 20% services (engineering, consulting, legal). Various study tours to EU BI were made (Barcelona Activa, UK Manchester, etc.) to learn best practices and train BI managers.
- **Beneficiary**: Ministry of Natural Resources- Mining Restructuring Agency; and the 6 Local county Councils/Mayors .
- **Construction funded by WB 3 years; TA 2 years by EU** for services once BI were opened. A few other MS cooperation agencies assisted with small TA for specific incubators. Only 5 BI set up, as the 6th could not get electricity connection at feasible cost.

LESSONS LEARNED:

- **Positive**: it can be DONE in isolated regions!! and even become "self-sustainable with grants of about 20- 40% of "total costs" (excluding works depreciation as for STP and Centres) for providing free or heavily subsidised services to agro-entrepreneurs and MSMEs.
- **Negative:** time longer than planned (ALWAYS); electricity, internet and other utilities major issue in remote regions! Also BI managers risk departure after EU funding finishes if salaries and other conditions are not planned as a "transition to local".

Examples of BI projects supported by EU with External Aid



Mozambique (2011- 2013)

- **Scope:** Feasibility and design of first multi-purpose BI in Maputo promoted by public sector with private sector support.
- **Beneficiary**: Ministry of Industry, and Municipality of Maputo
- **Various FWCs and TA by EU** for feasibility and later for opening and support. A few other MS cooperation agencies assisted with small TA specific incubators.

LESSONS LEARNED:

- **Positive**: Government has many unused buildings which can be reconverted into BI- lowering investment. Other programmes supporting private BI (WB INFODEV, etc.) can be leveraged to provide joint training, networking, etc.
- **Negative:** Difficult to overcome trust gap of private sector to support it. Difficult to have public sector “let go” management to private, independent professionals, needs visionary leader in ministry or government,

Examples of BI projects supported by EU with External Aid

Cameroon Food Technical Centre with BI (2015- 2016)

- **Scope:** Study and build a Technology Centre for Agro-food sector, with spaces for incubation and laboratories and equipment to be used by resident entrepreneurs and external SMEs of the region and sector. (mixed Tech-Centre Incubator, popular in Bio, health, food and small manufacturing (FAB-LAB), where facilities are needed for testing and launching products
- **Beneficiary**: Ministry of Industry and Yaoundé and Douala Municipalities.
- **TA by EU managed by UNIDO (10% funds);** for feasibility and design and support to funding .

LESSONS LEARNED:

- **Positive**: complicated to understand and design, but hedges risks of investment… It can be a successful Technology Centre (*Centre Technique industriel ou agroalimentaire*) or BI, or both (but usually more one or the other). Great Mix of services for non-IT entrepreneurs who need labs, prototypes, equipment, etc.
- **Negative:** Few Cooperation Agencies and EU Experts in public-private Techmology Centres (not public Research institutes), difficult to understand without visiting similar ones in Morocco, Tunisia, Egypt; or Southern Europe-France, Spain, Italy--- Northern Europe (Germany, Nordics, etc.) much larger and more R&D oriented than Mediterranean ones.

Examples of BI projects supported by EU with External Aid

Turkey Ankara Entrepreneurship Centre- a BI "without walls" (2016- 2017)

- **Scope:** Design, Reconstruct basement of Ankara Development Agency (ADA) as an Entrepreneurship Development Centre (EDC) with all services of a virtual incubator.
- **Beneficiary**: Ankara Development Agency (ADA) and 10 universities and their Techno-parks (STPs).
- **TA 2 years by EU** for training to 600 entrepreneurs, mentoring to 200, and commercialisation and funding support (especially with business angels) services to 40 startups, plus prizes, events, and a trip to Ireland incubators for 10 finalists (replicated all services of a virtual BI or "without walls").

LESSONS LEARNED:

- **Positive:** Very effective use of funds, as infrastructure investment was very limited (computers, decoration, furniture). Services delievered to HUNDREDS vs TENS of entrepreneurs in a traditional TA.
- **Negative:** Support more "ad-hoc", some entrepreneurs do not follow-up between mentorings and contacts; some support too "light" …

WHICH IS BETTER VALUE-FOR-MONEY VIRTUAL OR TRADITIONAL BI? NO EASY ANSWER,,, MUST SEE OBJECTIVES OF SPONSORS, STAKEHOLDERS AND ENTREPRENEURSHIP POPULATION.

CAN BE A MIX: THE GOVERNMENT AGENCY AS **UMBRELLA INCUBATOR**, AND PRIVATE INCUBATORS/ACCELERATORS/FAB-LABS AS SPECIALISED ENTITIES WHICH RECEIVE SUPPORT FROM THE UMBRELLA INCUBATOR /SCIENCE PARK AND OTHER ENTITIES.

Examples of BI projects supported by EU with External Aid

Burkina Faso Technopôle Ouagadougou- with BI and other units (Nov. 2018)

- **Scope:** Prefeasibility and pre-design of a Technopôle in the outskirts of Ouagadougou 15 kms to East- Gampela. No idea what to put there but a BI for sure, a Renewables Energy and am IT zone maybe (to study and justify and make stakeholders agree). After mission and workshop preliminary lay-out, buildings (BI, 3 Centres and spaces for construction) agreed in 2 Phases of 30 and 120 Hectares.
- **Beneficiary**: Ministry of Higher Education, Scientific Research and Innovation as coordinator, with Ministry of IT, Ministry of Energy, Ministry of Economy and Finance, and private sector institutions.
- **Mission carried by TPSDE facility;** possible future TA and Blending (loan or guarantees) with EIP with international institutions and MS agencies (but first Master Plan needed).

LESSONS LEARNED:

- **Positive**: BI /SME and IT Datacentre the easiest “components” of the Technopôle to agree upon, as most people know something about it. As regards the, Renewables Energies and Agrofood/Materials Technology Centres difficult to understand by stakeholders (vs traditional Research Institutes).
- **Negative:** Investment in infrastructure for new site development HIGH (at least 10 M EUR; Phase 1 at least 3 M EUR), before beginning BI/SME centre (1.5 M EUR), Technical Centres (between 1-5 to 2 M EUR each). Risks high of delays of electricity (even if there is already high voltage in site), high-speed INTERNET (unless a Telecoms operator can be attracted to locate or become a partner of Technopôle).

Remarks

- BI projects are very diverse and have to be tailored to:
  - Entrepreneurial and sector setting (normally the easiest the IT Tech BI)
  - Needs of entrepreneurs as to equipments for product development, prototyping, etc.
  - Span of services to be delivered: minimum (coaching and networking), desirable (mentoring, commercial support, fairs, prizes, funds and angels onsite), etc.
  - Facilities: alone, within Science Park or Innovation Centre or Co-working, etc.
  - "With walls vs without-walls"? What is desirable depth vs breadth?
  - Sectors: what does manager and staff/mentors know? how much to focus vs accept all sectors?
  - Terms of Reference normally drafted for pre-feasibility (alone or with Park-Centre), feasibility and business plan, Design and services, Works and Procurement equipment, or TA for services once constructed.
  - For smaller BI partnering with MS agencies and other donors can be enough; for larger or within Parks or Centres may need TA plus later EIP Blending with IFIs and/or MS Agencies (AFC, DFID, GIZ quite active across all regions, also others depending on sector/country).

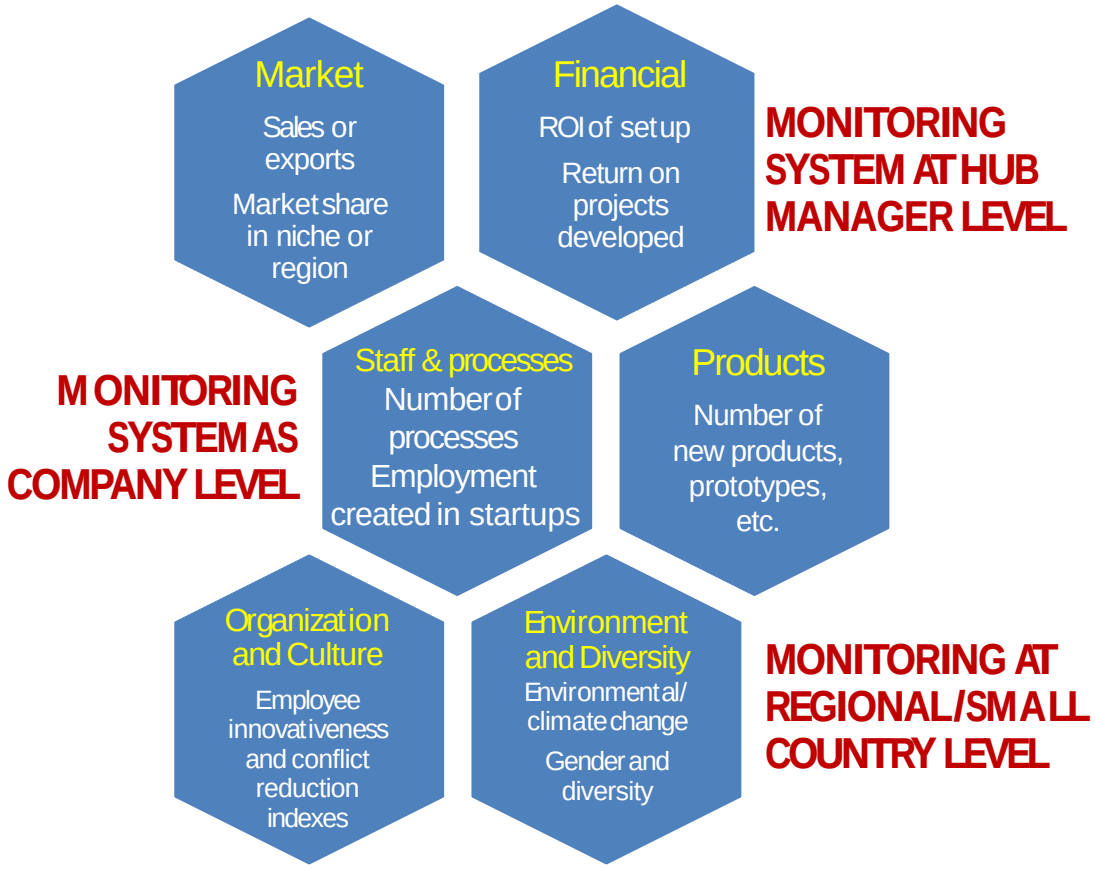
Key Activities for ToRs of BI or Science Parks-Technopoles

Termes de Référence pour la Réalisation du Master Plan du Technopôle d'Ouagadougou

Activités principales:

- Document cadre exprimant la vision et le positionnement stratégique du technopôle (basé sur celui de l'étude de préfaisabilité).
- Diagnostic technique et urbain de la zone de Gampela.
- Esquisses programmatiques et propositions de schémas d'aménagement du site.
- Recommandations sur les besoins des travaux d'infrastructure de base (voies, illumination, signalétique, électricité, eau est assainissement, etc.) du site d'implantation de Gampela pour les Phases 1 (30 hectares) et 2 (120 hectares).
- Dessin des bâtiments d'Administration, de la Maison de l'Innovateur, et des Centres Techniques « type », et services sociaux (formation, salon, restaurants, etc.) adéquats et attractifs pour les besoins et les conditions locales.
- Plan de projet opérationnel détaillé pour les travaux d'infrastructure, de la construction e aménagement des 3 bâtiments sous gestion du Technopôle (Administration, Maison de l'Innovateur et Services et espaces verts), et des terrains à louer aux Centres Techniques et aux entreprises et autres institutions externes.
- Diagnostique économique et juridique de la société de gestion du Technopôle(formule légale de l'entité de gestion comme partenariat public-privé, scénarios économiques à 5 ans, etc.).
- Cahier des prescriptions architecturales et urbaines et documents pour le lancement de l'appel d'offres (ou plusieurs) pour la construction des infrastructures et des bâtiments.
- Organisation de la structure de gestion du technopôle et brouillon de statut de l'entité légale de gestion.
- Définition des questions des impôts locaux, licences, et autre besoins pour le démarrage des travaux et après l'opération du Technopôle.

3 levels of monitoring a BI



The Quadrants and Metrics-indicators follow the OECD (Organization for Economic Cooperation and Development) definitions of Innovation of the Oslo Manual and are loosely based on Norton & Kaplan's Balanced Scorecard© for strategic performance improvement

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Performance of an incubator

Indicators (no consensus, but usually used)

1. *survival of the firm*
2. *generation of employment*
3. *growth of sales revenue*
4. *Innovativeness*

Example based on assumptions:

- *20 incubatees per year*
- *20% entrepreneurial failure after 2 years*
- *Number of jobs created / business: 4*
- *Revenue increase per year : 10%*

	Y1	Y2	Y3	Y4	Y5
Number of business created	20	20	20	20	20
Number of businesses failed			4	4	4
Cumulative number of companies surviving	20	40	56	72	**88**
Increase of revenues (en USD)	0	400.000	840.000	1.324.000	**1.856.400**
Jobs created	80	160	224	288	**352**

Study for the Fonds de Promotion de l'Industrie DRC 2017

Conclusion : Impact of Business Incubators

Economic impact

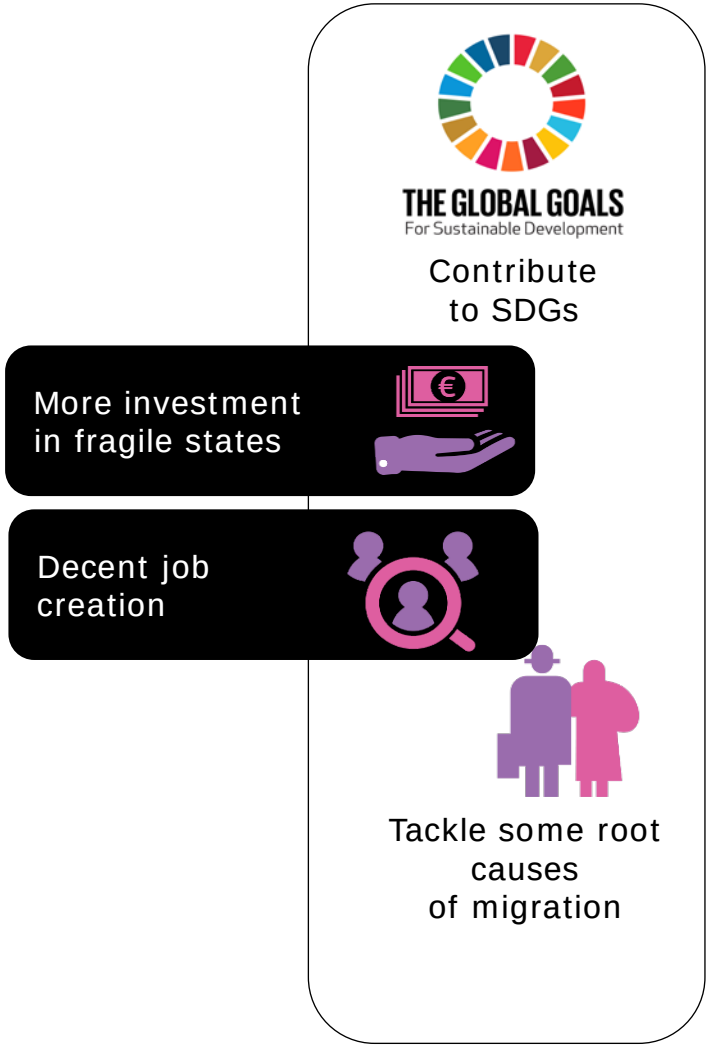
1. *Minimizing the chances of failure of start-up*
2. *Creating decent and sustainable jobs in specific VC*
3. *Increase revenues*
4. *Revitalize devastated sectors or diversify economy*
5. *Stimulate clustering, innovation and technology transfer*

Social impact

1. *Reduce unemployment, civil unrest, food insecurity*
2. *Empower specific categories (women, youth)*
3. *Prevent brain drain*

Political impact

1. *Increase tax revenues*
2. *Improve investment climate*



Conclusion : Business Incubators as powerful tools for EIP

European Fund for Sustainable Development (EFSD)

- New guarantee to reduce risk
- Blending loans and grants

- Africa Investment Platform
- EU Neighbourhood Investment Platform

Technical Assistance

- Support local authorities and companies preparing bankable projects
- Improving the investment climate in close engagement with the Private Sector

Investment Climate

- Structured dialogue with business
- Market Intelligence & Analytics
- Policy and political dialogue
- EU Cooperation

A one-stop-shop for public and private investors

Thank you for your attention