Introduction

Green Incubation

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Key questions

- What are „green start-ups“?
- Are there specific challenges for green start-ups and green incubation?
- Do we need specific support activities and programs for green start-ups, where are the gaps?
- What is „green incubation“?
What are „green start-ups“?
What are „green start-ups“?

- We define „green start-ups“ as:
  - young companies (age 0 – 8 years)
  - with green products as their core business (major part of product portfolio)

- Green products
  - are goods or services
  - that contribute to the goals of a green economy (emission reduction, renewable energies and materials, recycling, biodiversity etc.) (UNEP 2011)
  - cf. Eurostat classification of „Environmental Goods and Services Sectors“ (EGSS)
Are there specific challenges for green start-ups and green incubation?
Aspects that are potentially specific about green start-ups

- Entrepreneur-related specifics
  - A greater variety of entrepreneur-types: from „mission-driven“ to „profit-driven“
  - Cultural (mis-)fit between „mission-driven“ entrepreneurs and classical support actors

- Technology-related specifics of GreenTec ventures
  - Higher demand for R&D-infrastructure (labs, testing facilities etc.)
  - Average product development duration is longer than in other technology sectors
  - Number of tech. standards, laws in infrastructure-related innovations (grid, electric cars)

- Market-related specifics
  - Powerful incumbents in mature industries like energy sector and car sector
Aspects that are potentially specific about green start-ups

- Financing-related specifics
  - Cultural (mis-)fit between „mission-driven“ entrepreneurs and classical investors
  - On average higher sums of venture capital needed for green hightech ventures
  - Little knowledge and experience of investors with cleantec/sustainability
  - Small number of investors specialized in GreenTec-/Green Economy start-up investments

- Support-related specifics
  - No established classification standards yet for „Green Economy“, „cleantec“ etc.
  - Little awarenesss and knowledge about the economic relevance of green future markets
  - Very few specialized support actors (incubators etc.)
  - Little experience and expertise in green incubation
Do we need specific support activities and programs for green start-ups?
Support systems for green start-ups

- European research project
  - funded in Eco-innovera
  - 2013 – 2016

- Partners
  - Borderstep Institute, Berlin, Germany
  - Linköping University, Sweden
  - Aalto University, Helsinki, Finland

- www.shift-project.eu
Conceptual framework: Support systems for sustainable entrepreneurship

### Public and private support system

<table>
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<tr>
<th>Actors</th>
<th>Universities</th>
<th>Incubators</th>
<th>Business development organizations</th>
<th>Design service providers</th>
<th>Financial institutions</th>
<th>Other actors</th>
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<tr>
<td>Approaches</td>
<td>Business platform</td>
<td>Business plan competitions</td>
<td>Cluster initiatives</td>
<td>Design for sustainability</td>
<td>Public funding</td>
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*Boosting the development and implementation of eco-innovation*

### Key actors: Entrepreneurs, start-ups & MSMEs

<table>
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<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
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<td>Opportunity identification</td>
<td>Opportunity evaluation</td>
<td>Commitment of resources</td>
<td>Market entry</td>
<td>Full launch &amp; growth</td>
<td>Maturity &amp; expansion</td>
<td>Liquidity event</td>
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*Sector context: emerging, growing, mature industries*

*Environmentally beneficial, Economically feasible, No conflict with social sustainability*
Are there any gaps in the present support systems in regard to green start-ups?
Identifying gaps between the needs of green start-ups and the support system

Supply
- Support system
  - Universities
  - Incubators
  - Business development organizations
  - Design service providers
  - Financial institutions
  - Other actors

GAP
- Real gaps
- Perceived gaps

Demand
- Key actors
  - Entrepreneurs
  - Start-ups
  - MSMEs

Supply side barriers

Demand side barriers

Stimulating, initiating and implementing eco-innovation and the transformation towards a Green Economy
What is „green incubation“?
Business incubator

- Business incubators are a form of entrepreneurship support that
  - caters to new ventures and Micro-SMEs in particular locations and
  - can focus on particular industries or provide generic support for all types of businesses (Klofsten & Bienkowska 2013)

- Four main types of incubators have been identified in previous research:
  - Business Innovation Centres
  - University Business Incubators,
  - Independent Private Incubators, and
  - Corporate Private Incubators (Grimaldi & Grandi 2005).

- The main areas of business incubator activities can be characterised as
  - selection of members;
  - provision of infrastructure; business support;
  - mediation, i.e. development of relationships and contact networks; and
  - graduation, i.e. strategies for exiting the incubator (Bergek & Norrman 2008).
Green Incubation: Definition and relevant aspects

- Green incubation .... comprises all entrepreneurship support activities of business incubators
  - specifically aimed at supporting venture projects and start-ups for a Green Economy

- Important aspects of green incubation
  - Raising awareness of the relevance and opportunities of green innovation and venturing
  - Integrating sustainability aspects into business development (mainstreaming): SBM, SBP
  - Increasing the quality, survival rate and success of green start-ups
  - Increasing the number of innovative green venturing projects and start-ups
  - Improving conditions and entrepreneurial eco-systems for green venturing
Find more information at:

www.borderstep.de

www.shift-project.eu

www.startup4climate.de