Global Best Practice for Managing Innovation Ecosystems and Hubs

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Global innovation trends and emerging challenges for innovation creation

- Value network advantage & competition
- Open innovation model in borderless, connected world
- Management of continuous change (scanning & driving)
- Virtualization of interconnections (scale effect)
- Management of global partnerships
- Ability to connect talent, network, clusters & processes

The development focus shifts to managing innovation partnerships and networks
A successful innovation system must include:

1. Strong basis in local know-how and pool of talent
2. Clear target to achieve international best-practice
3. Global reach and goals
4. Networking relationships with the top-runners
5. Access to continuous flow of attractive players

It is all about collaboration in global context
Practical development targets for the regional innovation eco-systems

National or Regional Innovation System

Regional pre-conditions:
1 - potential of existing innovation system (=audits)
2 - willingness to utilise this potential (=active participation)

Joint R&D
Joint Innovation capacity
Joint Commercialization
Joint Platforms

Regional and global development programs
Support for growth companies
Global hubs and innovation labs

Public support

4-5 years
2-3 years
on-going

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Background for Hub Framework Development

1. Visits and discussions in over 250 science & technology parks
2. Consultation for over 100 STPs, innovation centers and clusters
3. Advisory work for foreign governments and STPs
4. Hands-on management of STPs, regional programs, clusters & centers
5. Tested on selected (7) best-practice sites around the world

Countries and sites include:
USA, China, Russia, Japan, South-Korea, Canada, UK, France, Poland, Croatia, Estonia, Norway, Sweden, Denmark, Australia, New-Zealand, South-Africa, Mozambique, Botswana, Namibia, Thailand
The global innovation HUB development concept

- Anchors
- Growth SMEs
- Start-ups
- Incubation Environments
- Living Labs / Test-Beds
- Cluster Policies & Programs
- Research & Development Activities
- Education (elementary to university)
- Physical Infrastructure and Service Structures
- National / Regional Innovation Policy

“Smart Handover”

Company and forum driven activities
Public-private partnerships
Public policy driven activities

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Hubconcepts’ case studies 2010:
The global best practice for developing the regional innovation environments and hubs

ASIA
Daejeon, The Republic of Korea
Shanghai, The People’s Republic of China
Kanagawa, Japan

USA
Silicon Valley, California
Research Triangle Park, North Carolina

EUROPE
Sophia Antipolis, France
Cambridge, United Kingdom
Case: Daejeon, Korea

- National/Regional Innovation Policy
- Research & Development Activities
- Education (elementary to university)
- Physical Infrastructure and Service Structures
- Cluster Policies & Programs
- Start-ups
- Living Labs/Test-Beds
- Incubation Environments
- Anchors
- Growth SMEs

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Case: Shanghai, China

Technology Innovation Area

Scientific Research and Education Zone

Residential Zone

Semiconductor Phase I

Biotech & Pharma Phase I

Biotech & Pharma Phase II

Semiconductor Phase II

Start-ups

Incubation Environments

Living Labs / Test-Beds

Cluster Policies & Programs

Research & Development Activities

Education (elementary to university)

Physical Infrastructure and Service Structures

National / Regional Innovation Policy

Authors

60 wtl SMEs

50 Start-ups

Innovation

30

40 Cluster Policies & Programs

Research 70 Development Activities

Education 70 (elementary to university)

Physical Infrastructure and Service Structures

90

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Case: Kanagawa, Japan

Kanagawa Science Park (KSP)

KBI C/K²

THINK

Haneda Airport

Kawasaki Waterfront Area

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Case: Silicon Valley, CA USA
Case: Research Triangle Park, NC USA

The Triangle Region

The RTP

- 80 National / Regional Innovation Policy
- 80 Physical Infrastructure and Service Structures
- 80 Education (elementary to university)
- 80 Start-ups
- 50 Incubation Environments
- 50 Living Labs / Test-Beds
- 50 Cluster Policies & Programs
- 40 Research & Development Activities
- 40 Anchors
- 40 Growth SMEs
- 40 with SMEs
- 30 Start-ups
- 20 Living Labs / Test-Beds
- 20 Incubation Environments
- 20 Cluster Policies & Programs
- 10 Research & Development Activities

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Case: Sophia Antipolis, France

Sophia Antipolis

Côte d’Azur

Sophia Antipolis

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Case: Cambridge, UK

= a science and technology park
= a university

物理基础设施和服务结构

创新政策

研究与开发活动

教育（从小学到大学）

集群政策与计划

孵化器环境

安克

成长SME

启动公司

生活实验室/测试床

30%

80% 国家/地区创新政策

90% 物理基础设施和服务结构

90% 教育（从小学到大学）

60% 集群政策与计划

70% 孵化器环境

70% 启动公司

50% 生活实验室/测试床

80% 增长SME

80% 安克

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Key Features of Future Cities

- **Large scale urban development**
  - Industrial corridors
  - Smart cities
  - Urban renewal programs

- **Impact of energy efficiency**
  - From CFL to LED revolution
  - Smart grids
  - Green buildings/industries

- **Meeting mobility needs**
  - Public transportation (BRT, Monorail, Metro rail)
  - Shared vehicle services
  - NMT (Non-motorized transit) Electric Vehicle

- **Managing water for future**
  - Reducing non revenue water (NRW)
  - Re-use and recycle
  - Water treatment

- **Meeting energy demand through Non-Conventional sources**
  - Waste to energy
  - Renewable energy
  - Bio – Energy

- **Smart Service delivery**
  - Outsourcing
  - PPP
  - E- governance
1. Smart City Master Plan
   - Smart government
   - Smart grids
   - Smart business
   - Smart lifestyle

2. Green Buildings & Districts
   - Design guidelines
   - Eco-City KPI's
   - Sustainability guidelines

3. Innovation Capacity Base
   - University Education Projects
   - Vocational Training Centers
   - Library master plans

Complementing Development Layers
# The 3-in-1 Future Cities

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<th>Smart City</th>
<th>Eco City</th>
<th>Learning City</th>
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<td>Integrated Operating Center</td>
<td>District cooling/heating</td>
<td>Innovation/R&amp;D Clusters</td>
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<td>Distributed Energy Systems</td>
<td>Eco-Technologies R&amp;D</td>
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<td>Security Systems</td>
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<tr>
<td>E-government Solutions</td>
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<td></td>
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**Smart Grid / Micro Grid + Common IT Platform + Cloud Computing Strategy**

**Intelligent Transportation and Mobility**
Otaniemi, Finland

- National / Regional Innovation Policy
- Research & Development Activities
- Education (elementary to university)
- Cluster Policies & Programs
- Start-ups
- Living Labs / Test-Beds
- Incubation Environments
- Anchor Growth SMEs

Sophia Antipolis, France

- National / Regional Innovation Policy
- Research & Development Activities
- Education (elementary to university)
- Physical Infrastructure and Service Structures
- Cluster Policies & Programs
- Start-ups
- Living Labs / Test-Beds
- Incubation Environments
- Anchor Growth SMEs

Cambridge, UK

- National / Regional Innovation Policy
- Research & Development Activities
- Education (elementary to university)
- Physical Infrastructure and Service Structures
- Cluster Policies & Programs
- Start-ups
- Living Labs / Test-Beds
- Incubation Environments
- Anchor Growth SMEs
Operations
Evaluation -> Roadmap -> Implementation

I: Present profile
- Ankkurit
- Kasvuyritykset
- Pk-yritykset
- Hautomoypäräistöt
- Testiympäräistöt ja -alustat
- Klusteriohjelmat
- T&K ympäristö
- Koulutus (perusopetuksesta yliopistoihin)
- Fyysiset ympäräistö ja palvelurakenteet
- Kansalliset ja alueelliset ohjelmat ja säädösympäräistö

II: Target profile
- Ankkurit
- Kasvuyritykset
- Pk-yritykset
- Hautomoypäräistöt
- Testiympäräistöt ja -alustat
- Klusteriohjelmat
- T&K ympäristö
- Koulutus (perusopetuksesta yliopistoihin)
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III. Implementation

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Innovation is both global and local

Networking, Open innovation, Interconnected, Shared, Virtual
New book published in January 2011!

- Hubconcepts -
The Global Best-Practice for managing the innovation hubs and STPs

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