# Development, Sustainability & Culture (WM0942TU): work group 3

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## **Today**

- You have read Hekkert et al.
- Very short repetition of teaching about innovation
- Discussion of the Hekkert text
- Innovation Analysis: discussion in groups & plenary reporting
- Discussion questions Feasibility Report, in groups & plenary reporting

**ℱ TU**Delft

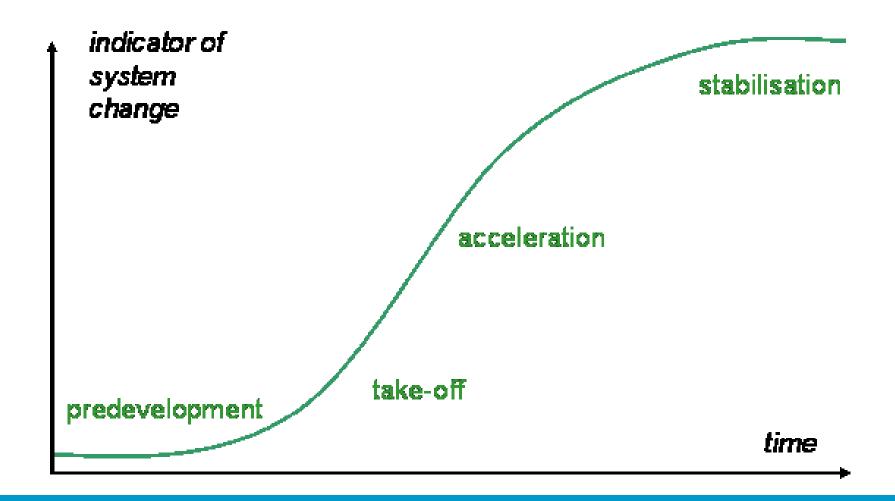
NB: No other case!

#### Main questions of this course

- Under which conditions is a development project successful?
  - ➤ Focus on internship: How can my internship project become a success; i.e. result in a successful innovation?
- Under which conditions does a development project contribute to development?
  - ➤ Focus on internship: How can the internship project become a useful contribution to development?



#### **Development = Transition**

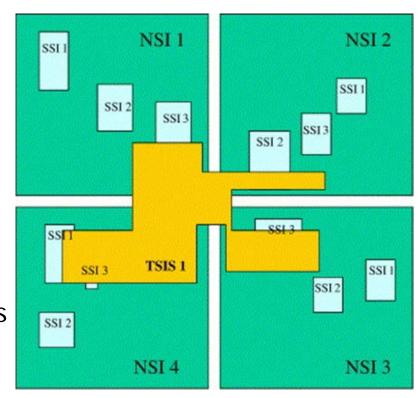




#### Innovation systems & development

#### Geographical:

- Sub-national innovation systems,
   e.g. "sustainable village" &
   export production zones in China
- National innovation systems,
   e.g. 18<sup>th</sup> century England and
   late 19<sup>th</sup> century USA
- International innovation systems
   e.g. Europe, multinationals & universities

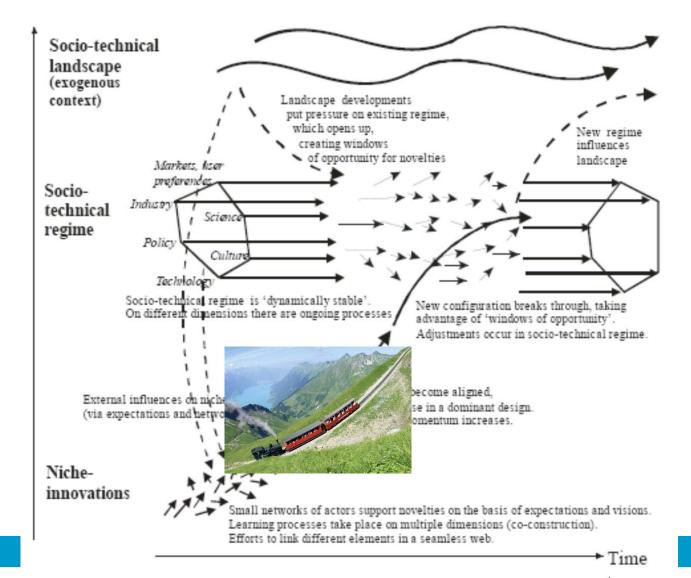


#### Specific:

- Sectoral innovation systems, e.g. construction sector
- Technological innovation systems, e.g. RETs



### **Dynamics of Development**





### Hekkert paper

- What do you consider as the main points?
- Explain the functions
- What does FIS not answer?



#### Hekkert paper answers

- What do you consider as the main points?
- → Functions on slide 9
- Explain the functions
- What does FIS do and what does it not do?
- → It indicates necessary and sufficient conditions for successful innovation
- → It does not give sufficient conditions for development, only necessary ones (see slides 10 & 11)

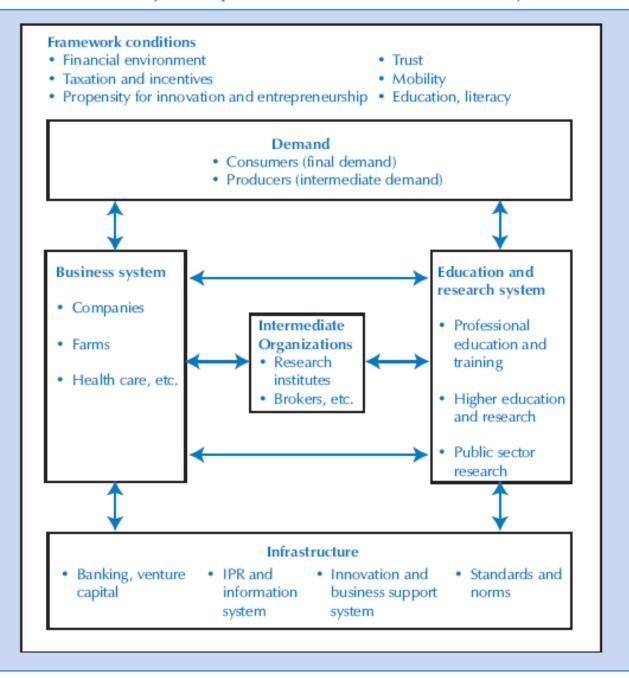


#### **Functions for success**

- Entrepreneurial activities
- Knowledge development
- Knowledge diffusion through networks
- Guidance of the search
- Market formation
- Resources mobilization
- Creation of legitimacy / counteract resistance to change



Chart 7. Major components of a national innovation system



Source: The Least Developed Countries Report, 2007



10

# 5. Innovation Analysis (part 1: the internship project)

Discuss in groups:

 How does the economic or technological sector of your project scores at the seven functions and what actions are necessary for the successful implementation of your internship?



### 5. Innovation Analysis (part 2): the country

#### Discuss in groups:

- What is the business system like?
- How do markets function?
- How is education organized?
- How is research organized?
- What networks of infrastructure are present and what is their state?
- What are the framework conditions? (Financial environment, taxation & subsidies, propensity for innovation & entrepreneurship, trust, mobility and literacy)



## In sum: Types of Analysis

- 1. Development & Poverty Analysis (Sachs & Easterly: poverty diagnosis & homegrown development)
- 2. Institutional Analysis (Acemoglu & Robinson: inclusive vs extractive)
- 3. Cultural Analysis (Hofstede, Trompenaars & Kroesen: cultural dimensions)
- Civil Society Analysis (Hansen, Hyden & Sardan: fair & open playing field)
- 5. Innovation Analysis (Hekkert: functions)

#### Back to main questions: clues for answers

Under which conditions is a development project successful?

- ➤ Focus on internship: How can my internship project become a success; i.e. result in a successful innovation?
- → Functions of Innovation systems approach (TIS/SIS)

Under which conditions does a development project contribute to development?

- ➤ Focus on internship: How can the internship project become a useful contribution to development?
- → National Innovation Systems (+NIS) (production)
- → Inclusive institutional context for inclusive development (distribution)



14

## **Feasibility Report**

- Discuss the answers to main questions
- Use the Innovation Analysis
- Use the earlier Analyses! E.g.
- ➤ Entrepreneurship as bottom-up solution to development problems (Easterly)
- ➤ However, the context matters (Sachs, Acemoglu & Robinson, Kroesen and others on culture & civil society)
- NB: Mind overlap of the Analyses (see slides 17 & 18)



## Overlap: Innovations (1/2) & Culture dimensions

Sector		Country		<b>Dimensions</b>	
1.	Entrepreneurial activities	1. 2.	Business system  Education & research	•	Productivity
2.	Knowledge development		system, Intermediate organizations		paradigm & Civil Society:
3.	Knowledge diffusion through networks	3.	Idem	•	universalism competition risk taking status by achievement sequentialism internalism egalitarianism individualism
4.	Guidance of the search	4.	Framework conditions	•	
5.	Market formation	5.	Demand	•	
6.	Resources mobilization	6.	Infrastructure & Framework	•	
7.	Creation of legitimacy / counteract resistance to change	7.	conditions Framework conditions	•	

Source: Hekkert 2007



### Overlap: Innovation (part 2) & Institutions

#### **Variables**

- What is the business system like?
- How do markets function?
- How is education organized?
- How is research organized?
- What networks of infrastructure are present And what is their state?
- What are the framework conditions?

#### Inclusive or extractive

- Free enterprise of government monopolies?
- Free markets or regulation & planning?
- Open or elite?
- Private and public parties for the benefit of society? Or for state interests?
- Functional for society? Or for the elite?
  - Efficient for development purposes? Or in the interest of the elite?

### **Assignments**

- Innovation Analysis, deadline 12 October
- Feasibility Report, deadline 12 October
- Read Baarda et al. on interview technique for last and extra meeting next week

