National Innovation System?
The Netherlands

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Abstract

This case study examines the Dutch National Innovation System. Using.... t.

Introduction

The National Innovation System is used described and explain how innovation is influenced by more than just firms in a country. Chaminade et al. (2018) describe it as a system with relationships between organisations, instutions and and social structures that will influence innovation speed and direction within a country. In this case the nation will be The Netherlands and different aspects of the Dutch Innovation System will be discussed here.

There are two definitations in use to describe the National Innovation System, The narrow and the broad. To get a better understanding the broad definition is used. Accoding to (Chaminade et al., 2018, p. 9) this is" a wider set of policies including industrial policy and policies related to competence buidling such as education and labour market policy".

The Dutch innovation system

Dutch History

The Netherlands is a small country but big on trade always have been. Numbers today give a good idea about the how the Dutch play an important part in

trade and especially agriculture. According to Agency (2018) the Netherlands is the second largest agricultural exporter after the US.

But also in other exports the Dutch rank high.

Not only in Export but within Europe The Netherlands is reffered to as one of the innovation leaders. Why are they seen as an innovation leader on what grounds.

Trade today met plaatje

RenD and Patents

Using the narrow definition of innovation one might look at the national Research and Developement Expendure or the amount of patents a counrtry claims.

add numbers and websites.

Howerever looking at these the Netherlands does not stand out among other countries. Ranking more or less in the middle this is one of the reasons why the framework of National Innovation Systems helps to understand how countries can be innovative.

other factors

In his book Christensen (1997) describes the national innovation System Voorbeelden voor Nederland wat doen we goed wat minder

Functions in the Dutch innovation system

literature

To look at the innovation system more indept different methods are used. One of them is a qualitve approach and in Chaminade et al. (2018) one of these approaches is the function approach. Different authors use different functions in this case we refer to functions proposed by Hekkert et al. (2007). They help look at more than just the Patents and RandD input. To see how the Netherlands score on these functions the *EUROPEAN INNOVATION SCOREBOARD - INTERNAL MARKET, INDUSTRY, ENTREPRENEURSHIP AND SMES* (2019) and *The Global Innovation Index* (2019) was used

On the European Score board The Dutch preform well in Education levels

Attractive Research systems

Innovation friendly environment what is that.....

top Sector Approach

One of the main steps the Dutch Goverment has taken to maintain it's position as a Innovation Leader is drafting a policy called the TOp Sector Approach. In this approach emphasis and phocus is on Sectors already preforming well. Often embeded in the history like flowers, argiculutre and Water but new sectors as well.

How does this look

The japanese Ministry of Economics, Sports, science, ... Made a model for the
   Check website top sector approach Feeding in the factors from the Dutch system
   Creativity important find refernce

recommadations

The Duch Innovation System looks strong eventhough the output does not really support that. Like other smaller Countries The Netherlands have shown that it is also important to know how to defiisuse new innovations.
   To keep this possition there are a couple of weaknesses in the national Innovation System.
   Education .. .. SCience and enigering „ Labour market ... Start ups
   top sector
   Looking back at the model what is important what is missing overlooked.....

Conclusion

Stay strong on education and environmental friendly Great infrastucture
   Top sectors good to have focus but don't overlook
   Grand challenges
   invest in RD is this so.
   Science and ENgineering graduates.

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