

On the policy space of smart specialisation strategies

[Dominique Foray](#)



[10th Regional Innovation Policies Conference](#)
[KIT, Karlsruhe](#)

[Sept 15-16 – Oct 2015](#)

- In search for 'good policies' to drive structural changes (diversification, modernisation, new industries) in European regional economies

Structural changes

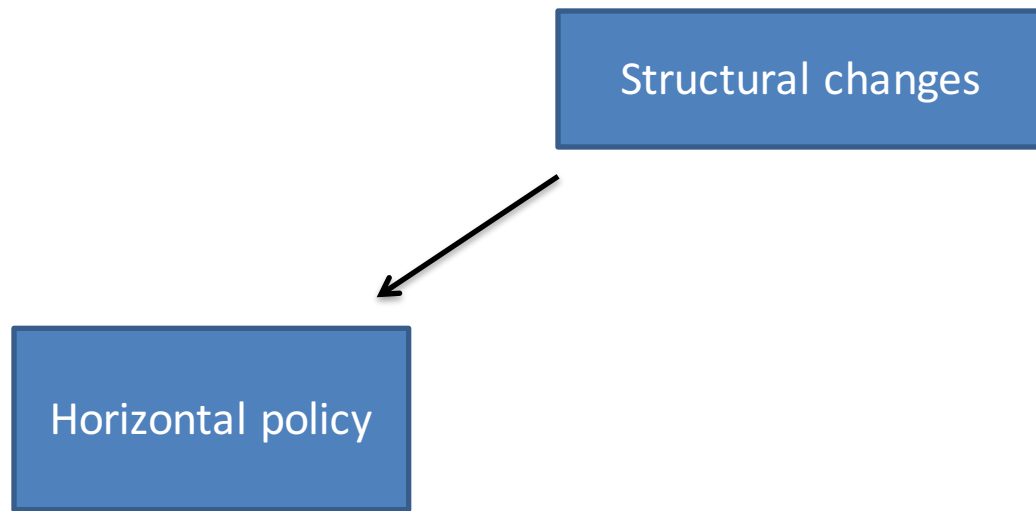


```
graph TD; A[Structural changes] --> B[Horizontal policy];
```

A diagram consisting of two blue rectangular boxes. The top box is labeled 'Structural changes' and the bottom box is labeled 'Horizontal policy'. A black arrow points from the bottom-left corner of the top box to the top-right corner of the bottom box, indicating a directional relationship or flow from structural changes to horizontal policy.

Horizontal policy

The innovation policy space



Likely to drive structural changes through mechanisms such as:

Mobility

Spin-off, start up

Diversification of firms

Networking

(Boschma and Frenken)

The innovation policy space

Horizontal Policy is not enough

- **These policies failed in many cases (less developed/transition regions)**
 - Horizontal policy did not reduce the knowledge gap
 - When the knowledge gap has been somewhat reduced, this did not translate into real economic progress
- Innovation requires not only that « the basics are right » but also specific capabilities and resources
 - In top regions these are provided by the main actors of innovation
 - In less advanced regions, « *firms are home alone* » (S.Berger)
- Need for a policy **to support the emergence of 'complete' systems of innovations** in particular activities where future competitive advantages can be built



**Biotech &
ICT in
fisheries
and canning
industry**

**Footwear
industry and
development
of advanced
manufacturing
technologies**

**Animal
genetics for
breeding**

**Internet
application
and e-
commerce
for tourism
services**

Microsystems of innovations emerge from connections between entrepreneurs, suppliers, research, lead users, etc.. to open and explore a new domain of opportunities

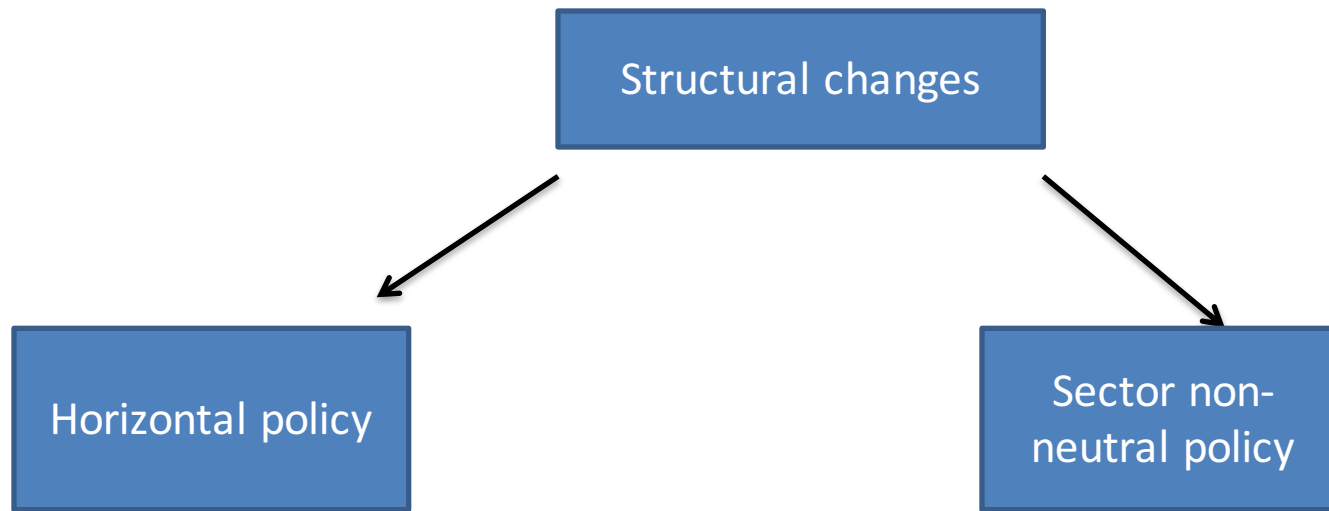
The new activities are complementing existing structures with the aim to transform them

Smart specialisation has two faces

- **Building capabilities** (organized in a micro-system of innovation)
- **Driving structural change** (modernisation, etc..)
- Of course a region can « import » all inputs factors for structural changes and get them without building capabilities. This is OK (perhaps a good sectoral policy in certain cases) but this is NOT smart specialisation
- Or it can « import » some factors AND build capabilities. This is smart specialisation
- Local capabilities formation is central **but the goal is NOT to get autarkic, self-sufficient regions**
 - Extra-regional resources need to be mobilized

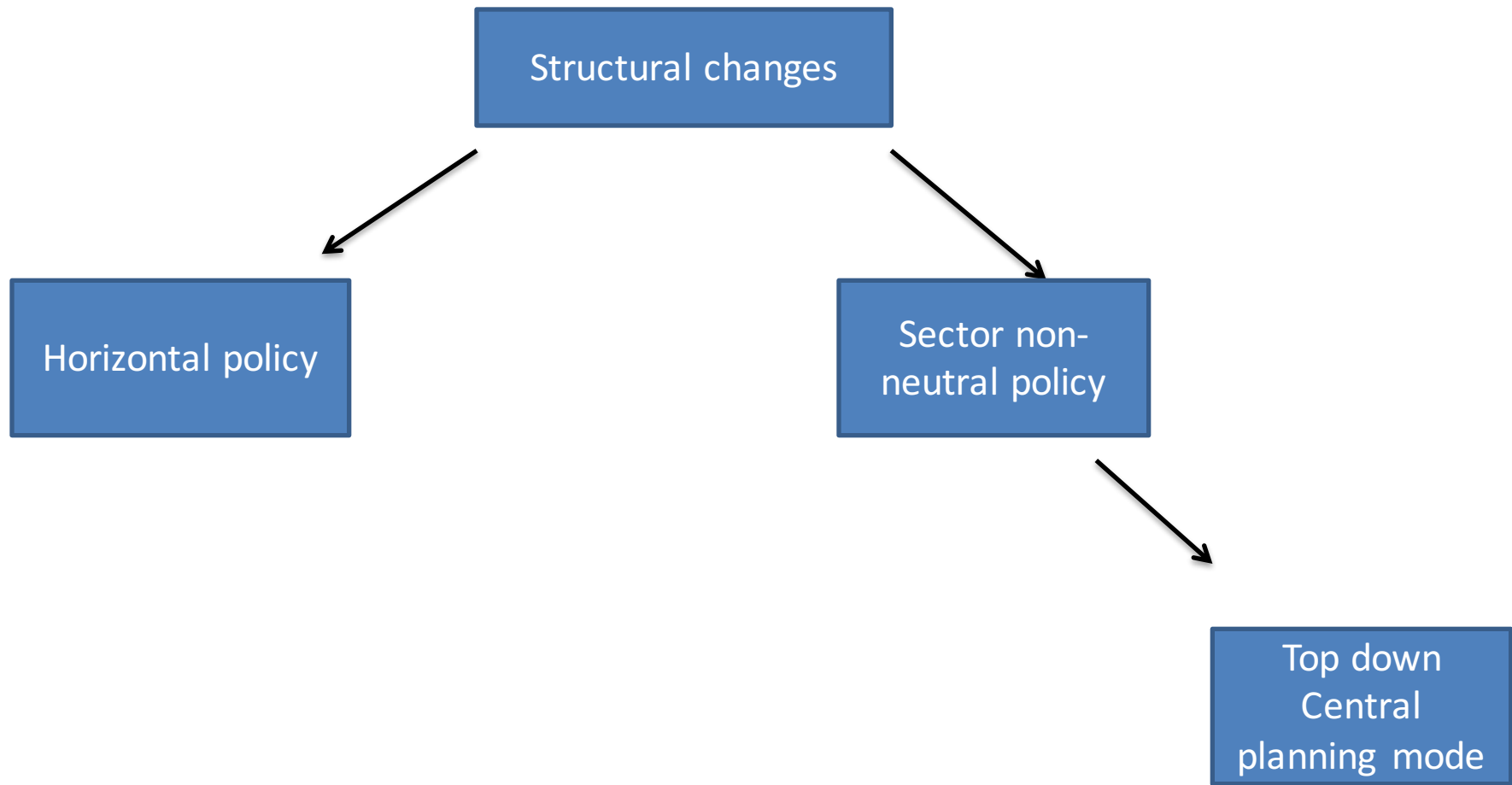
- But this is another logic of policy which is *sector non neutral* and sector specific...
- ..and it is necessary:
 - « ***The idea that the government can disengage from specific policies and just focus on general framework conditions in a sector neutral way is an illusion based on the disregard for the specificity and complexity of the requisite publicly provided inputs and capabilities*** »

Hausmann and Rodrik, 2006



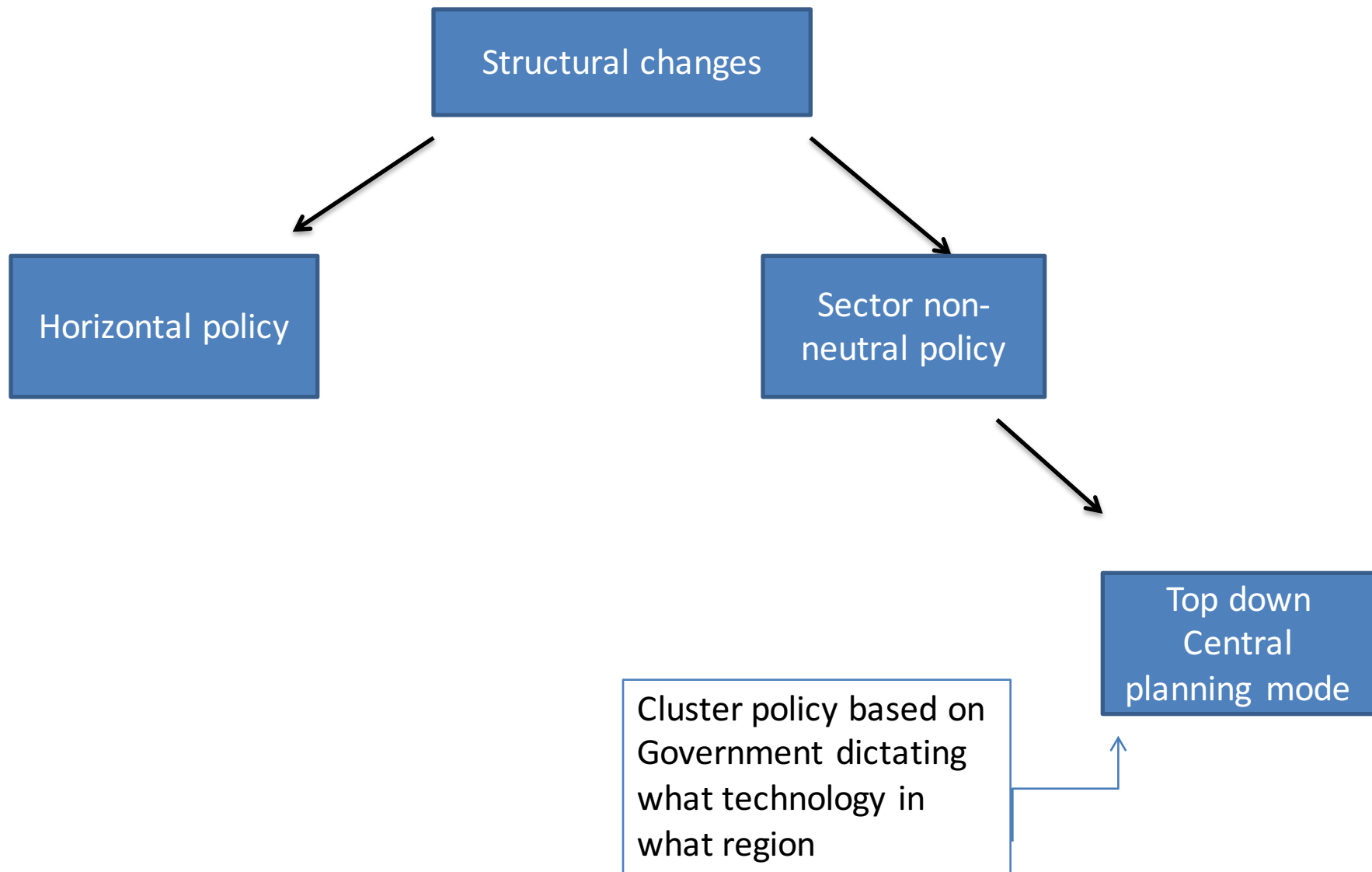
The innovation policy space

- Supporting the emergence of micro-systems of innovation in various sectors is an expensive policy
- Different activities require different things
- This is *haute couture* rather than ready to wear
- The local government cannot address all potential capabilities needs for all new activities
- « *We are doomed to choose* » (Hausmann and Rodrik, 2006)
- How to solve the choice problem?



The innovation policy space

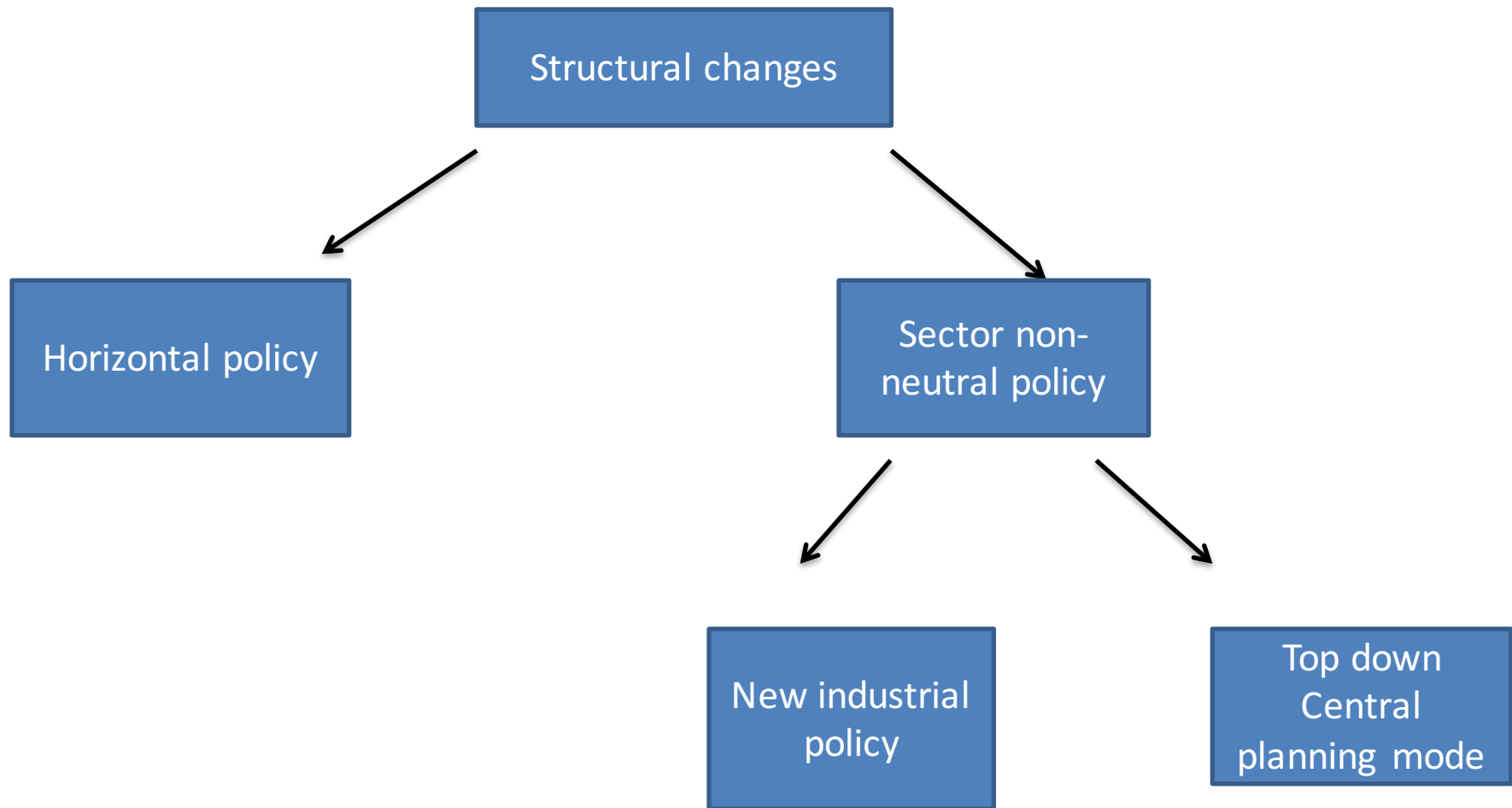
- The usual (old fashioned) response:
government as the omniscient planner.
- The principal knows *ex ante* what to do and
set the incentives for the firms to execute the
plan
 - Cases of cluster policy (which always displays
elements of systems of innovation) (for instance in
France)



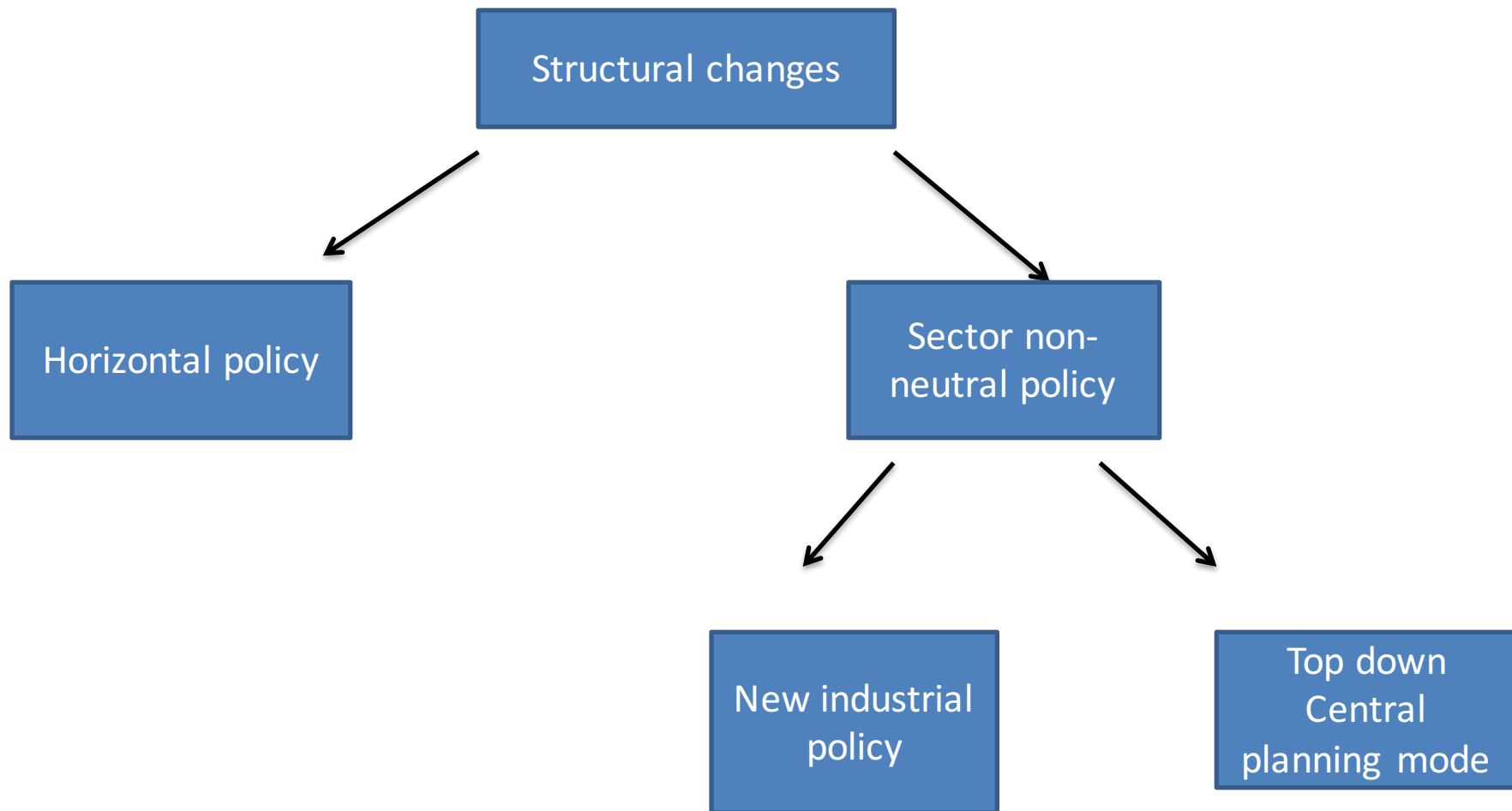
The innovation policy space

- Issues of distortions, picking winners, government failures, policy capture and anti-competitive effects
- *“Although it is certainly true that not everything can be done at once, focus on selected areas for large investments to the neglect of the rest of the economy is a highly questionable strategy. Why it would be preferable to allocate scarce capital so that some activities have excellent infrastructures while others must manage with seriously deficient structure is not clear: without further evidence, **it would appear to be a distortion**”.* (A.Krueger)
- Krueger is right..but this does not mean we should give up any sectoral non-neutral policies

- “What if, as I and many others assume, there are no principals...with the robust and panoramic knowledge needed for this directive role ?” (Sabel)
- « Entre d’un côté **retourner aux politiques industrielles ‘colbertistes’** et d’un autre côté **se limiter aux ciblage horizontaux**, **il y a un espace pour une nouvelle politique industrielle** qui serait à la fois **verticale et pro-compétitive** » (Aghion, leçon inaugurale au Collège de France, Septembre 2015)



The innovation policy space



The innovation policy space

Development policy – Hausmann and Rodrik

Mission-oriented policy – Foray, Mowery and Nelson

Pro-competitive sectoral policy – Aghion and Akcigit
Trajtenberg

Self-organizing industry investment boards – Romer

Smart specialisation – Foray, David and Hall

RIS3 as a new industrial policy

- **Choices are inevitable to undertake strategic actions**; mistakes need to be minimized
- Mistake type 1 : **the Government has the perfect knowledge** and knows *ex ante* what should be done.
 - In RIS3, specialisations are not given *ex ante*
- Mistake type 2 – **choices are made at sectoral level**
- Mistake type 3 – **choices are made for ever** (as in the world of Ricardo)

Design principle 1

Entrepreneurial discovery

- The government does not have innate wisdom or the *ex-ante* knowledge about future priorities.
- The knowledge about what to try and where to go is not obvious and not visible! It is hidden – It needs to be discovered!
 - The discovery process forms an integral part of political action
- **E** means entrepreneurial (in a broad sense) : firms, universities, public research, lead users, communities
- **D** means discovery, i.e. opening and exploring a new domain of opportunities

Exploring the potential of nanotech to increase operational efficiency in pulp&paper

Exploring Internet potentials for e-commerce in the provision of tourism services

Developing biotech application in fisheries and canning industry

Developing advanced manufacturing tech for the footwear industry

Exploring potential and genetic the breeding sector

The social value of a discovery is that it informs the whole system about the future value of a new activity

Opening the domain of smart mobility within buildings

Discovering the potential of the integration between textile and chemistry

Discovering the potential of artificial underwater 'Oases' for local diving tourism

Discovering the economic feasibility of producing swiss caviar

Entrepreneurial discovery *cont.*

- **ED matters twice**
- As a generic step of any process of structural changes - done by large firms, public-private partnerships or even SMEs which have the capabilities to open and explore a new domain of opportunities for diversification, modernisation, etc..
- As a solution to the information problem that the Government faces when comes the time of choices
- Based on this information, the Government can select a few number of new activities according to criteria about potential impact, feasibility , proximity to market, significance for the regional economy, number of actors involved, etc.

Stimulating and guiding ED

- Generic policy to stimulate ED
 - Leadership (firms, local university and PROs, cluster management, diaspora, extra-regional competences, FDI)
 - Platforms of tools and services
- Policy to stimulate ED where structural changes are badly needed
 - Specific programs for specific sectors
 - Specific programs for specific challenges

Pre-identification of potential areas or not

Programs to maximize e.d.
e.g. call for proposals, platforms

Priorities
RIS3 portfolio of activities at t

Pre-identification of « problems areas »



ed

ed



Ex ante
assessment
Selection

1

Pre-identification of « sector areas »



ed

ed



2

No pre-identification

ed



3

ed

Supporting micro-systems of innovation
Ex post evaluation

Level of granularity :
too high = no real guidance
too fine = the scope for ed might be too narrow

Design principle 2-

No sectoral prioritisation

- What is prioritized is not a sector but the new activity
 - Sectoral prioritization creates distortions
 - Activity level is the right one to see in detail the pieces of the knowledge economy that a region or country can take as a basis for its RIS3

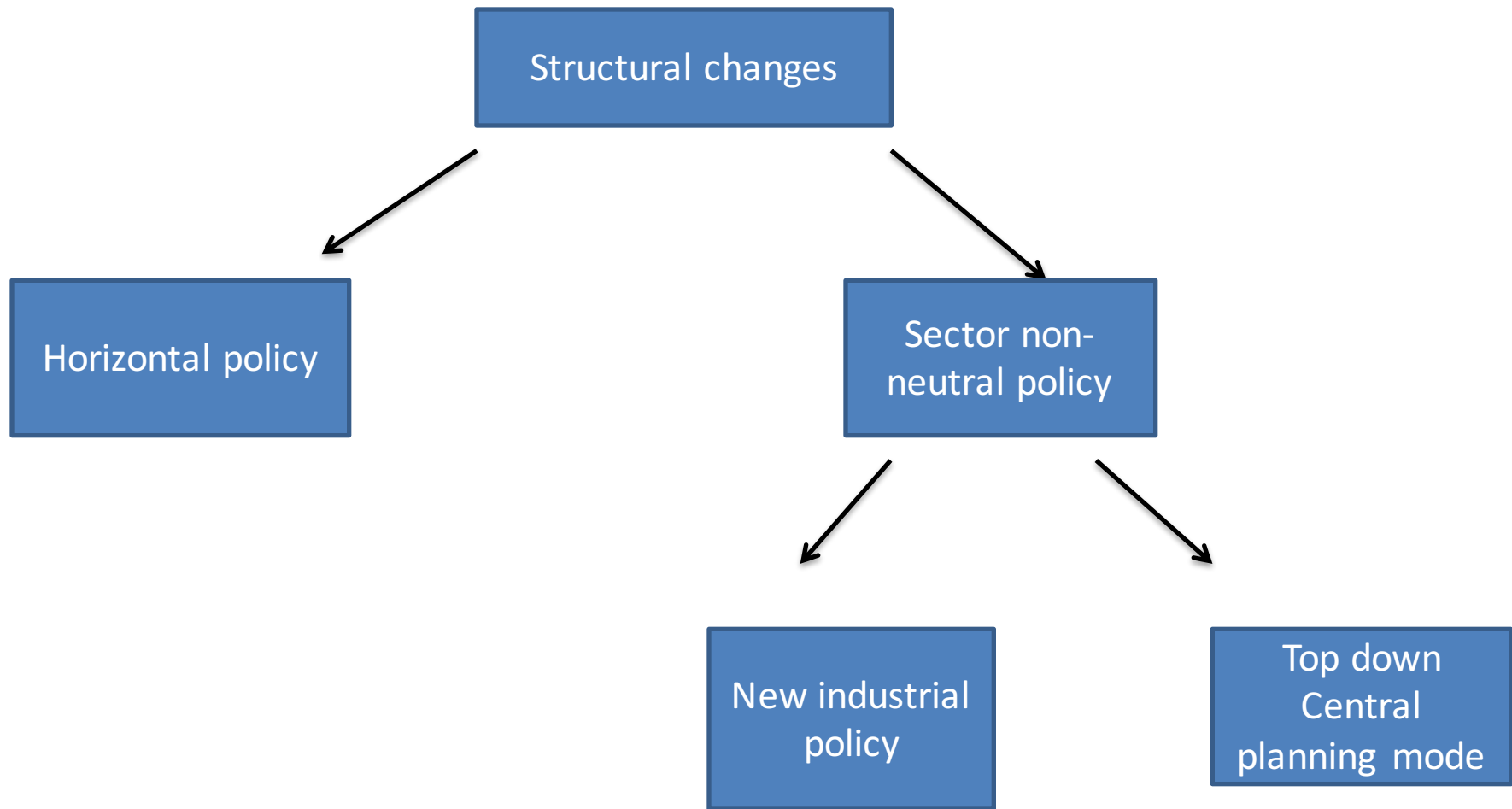
Design principle 3-

RIS3 has an experimental nature

- A few bets are placed on various domains
- **RIS3 is a living document**
 - After n years a new activity is no longer new (as a success or a failure it needs to exit)
 - New discoveries happen all the time and a few need to be integrated in the strategy

A smart specialisation strategy involves..

- .. putting in place a process:
- **to identify future domains** where competitive advantages can be built
 - stimulating and watching entrepreneurial discoveries
- **to concentrate resources** on a few number of domains
 - selecting domains and building micro-systems of innovation
- **to help these domains to grow**
 - providing specific capabilities and complementary resources,
- **to measure progress**
 - building indicators and benchmark
- **to re-initiate the process at any time**
 - making RIS3 a living document



Centrality of entrepreneurial discovery

***The innovation
policy space***

Lost in translation?

- Great impact : a (not too stupid) idea meets the new *conditionality principle*
- The price to pay for a great impact is high
 - Is it useful for the top regions?
 - Need for pilot studies?
 - Can we change the words?
- The regional government paradox

SMART SPECIALISATION

OPPORTUNITIES AND CHALLENGES FOR
REGIONAL INNOVATION POLICY



Thank

Regional
Studies
Association

THE GLOBAL FORUM FOR CITY
AND REGIONAL RESEARCH,
DEVELOPMENT AND POLICY

you

REGIONS AND CITIES

DOMINIQUE FORAY