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# Opportunities for new smart specializations

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## structure

- relatedness and regional diversification
- complexity and regional diversification
- connectivity and regional diversification
- institutions and regional diversification
- policy implications: smart specialization policy





## relatedness and regional diversification

- in essence, smart specialization policy is about developing **new specializations in regions**
- this requires a basic understanding of **how regions diversify** over time, and why their capacity to do so differs
- new specializations are no random events: they are often strongly embedded in **territorial capabilities**
- **relatedness** a key variable: new specializations grow out of related activities, in which new activities combine and exploit capabilities taken from local related activities



## relatedness and regional diversification

- Hidalgo, Klinger, Barabasi and Hausmann (2007):
  - countries develop new export products that are **closely related** in product space with existing export products
  - countries with higher **related variety** have more opportunities to diversify and sustain higher economic growth rates
- Neffke, Henning and Boschma (2011):
  - industries that are technologically **related** to pre-existing sectors in a region had a higher probability to enter the region
- this finding of **related diversification in regions** has been replicated in many follow-up studies





## complexity and regional diversification

- so, smart specialisation is about developing new specializations in regions which have a growth potential due to **local presence of related capabilities**
- but smart specialisation is also about developing new specializations in regions which are unique (that is, non-ubiquitous) in the world: **more complex**, and therefore also **upgrade the local economy** (Hausmann, Hidalgo et al.)
- **complex activities** are sophisticated and exclusive: cannot be produced by everyone (few competitors around): require very specific **local capabilities** (knowledge, institutions, etc.) and a large **variety of different capabilities**





## connectivity and regional diversification

- **relatedness** requires **connectivity**: economic effect of related variety in a region might still be low, when local related industries are poorly connected
- **complexity** also requires **connectivity**: more complex activities need to combine many diverse capabilities
- **connectivity** also means access to **non-local resources**
  - role of **brokers**: MNE's/universities/migrants/policy programs/political leadership
  - relevant for **peripheral regions**: but how to identify relevant non-local resources and connect to them?





## institutions and regional diversification

- **institutions** affect the ability of agents to connect and combine (related) activities
- institutional context has an impact on the intensity and nature of regional **diversification**
- study on diversification of countries (Boschma and Capone 2015): some **national institutions** enable more unrelated diversification, like less tightly-structured and more market-oriented institutions
- study on industrial diversification of European regions (Cortinovis et al. 2016): some regional institutions facilitate regional diversification, like **bridging social capital**



## implications for smart specialization policy

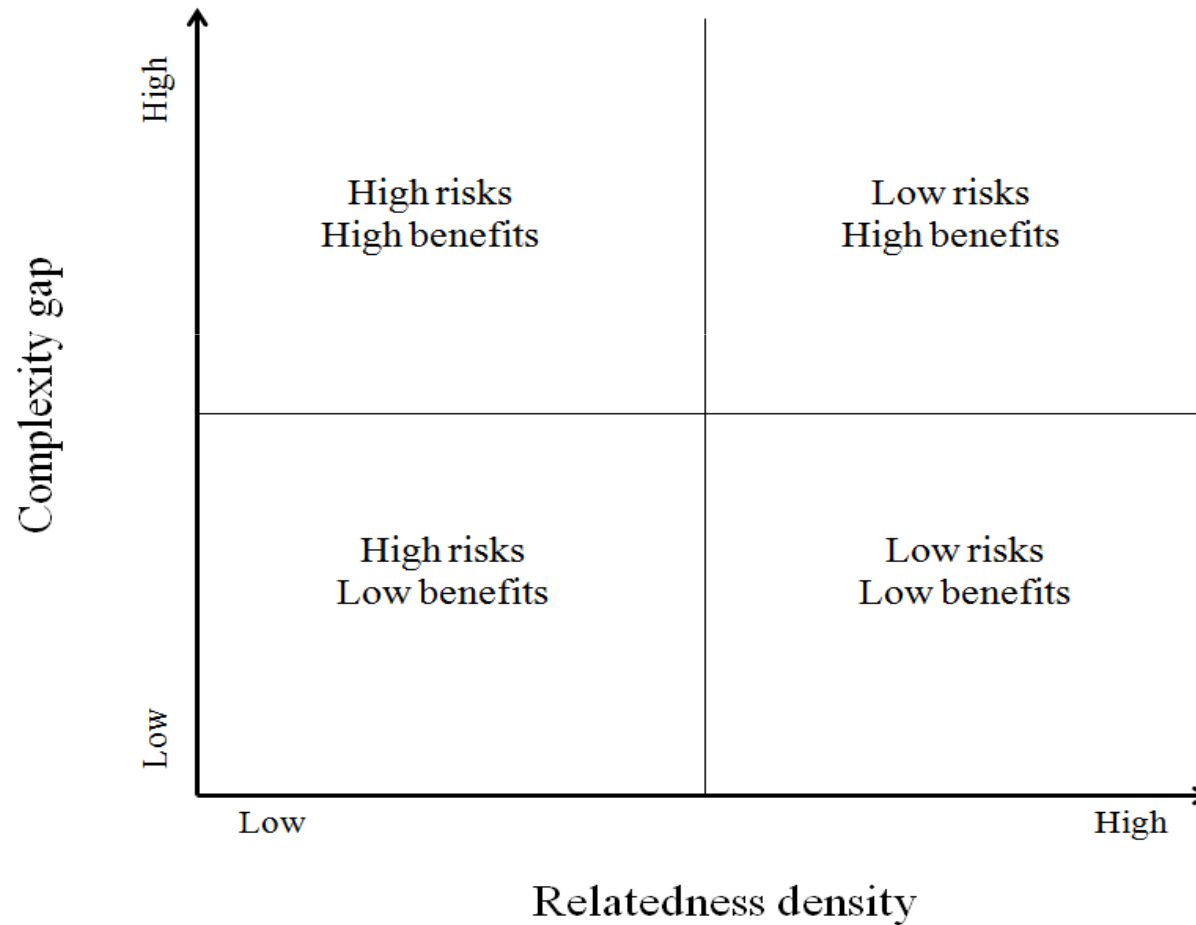
- need to identify regional potentials to diversify successfully: **relatedness, complexity, connectivity** and **institutions**
- **entrepreneurial discovery process**: smart specialization is: “... largely about the policy process to select and prioritise fields or areas where a cluster of activities should be developed, and to let entrepreneurs discover the right domains of future specialization” (Foray et al. 2011, p. 7)
- **bottom-up policy (no ‘one-size-fits-all’)**: “entrepreneurs ... are in the best position to discover the domains of R&D and innovation in which a region is likely to excel given its existing capabilities and productive assets” (Foray et al. 2011, p. 7)
- some regions have more capabilities and (related) variety, and thus more opportunities to diversify into new specializations
- some regions have institutions and governance structures that facilitate activities to connect and make new combinations





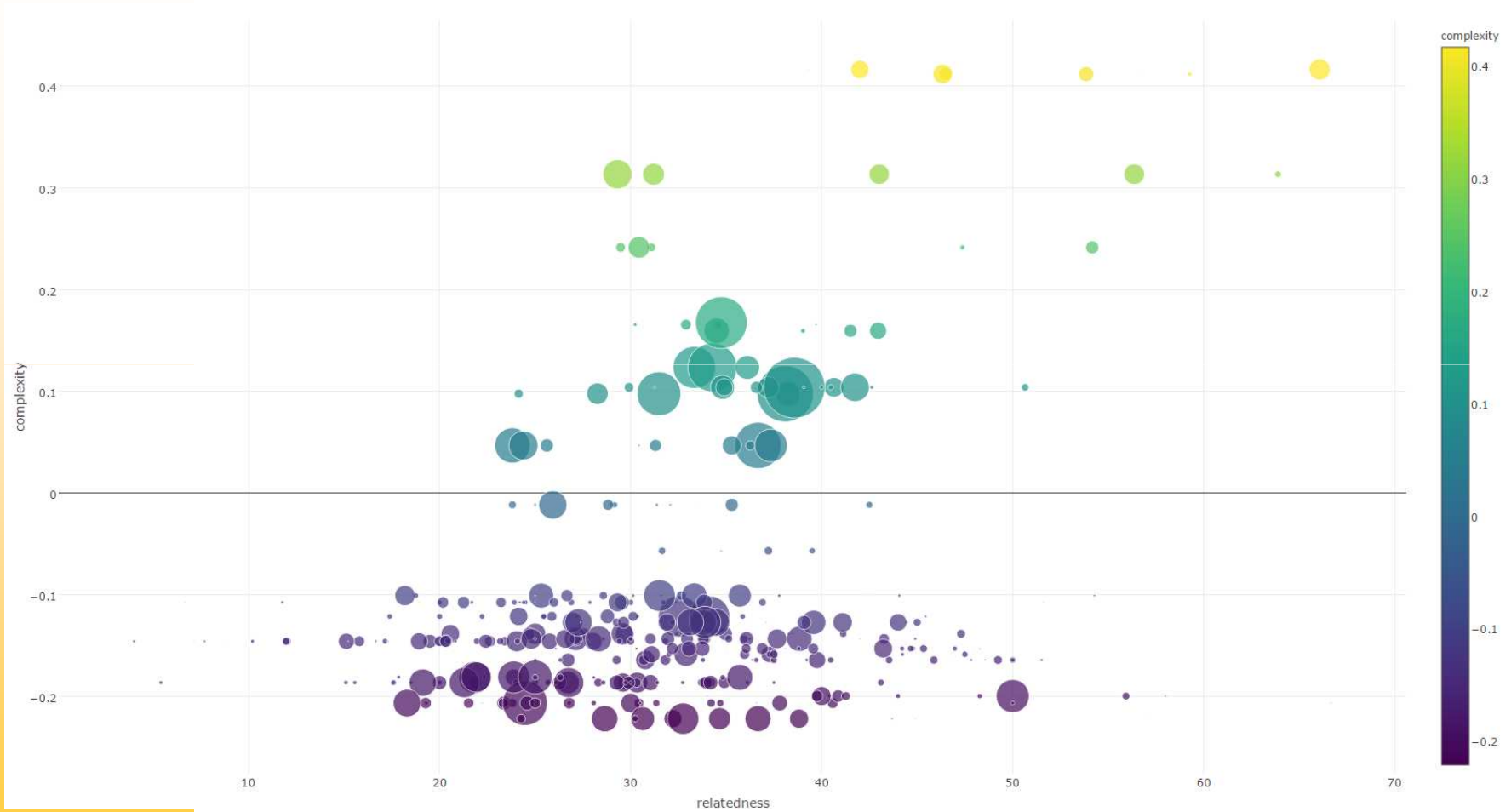


## implications for smart specialization policy





## Ile de France region



[http://econ.geo.uu.nl/balland/Ile\\_de\\_France.html](http://econ.geo.uu.nl/balland/Ile_de_France.html)



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# Nord Pas de Calais region



[http://econ.geo.uu.nl/balland/Nord\\_Pas\\_de\\_Calais.html](http://econ.geo.uu.nl/balland/Nord_Pas_de_Calais.html)



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**thank you for your attention!**



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