

Metropolitan and Mainport Economies in Tandem for Transition (MMETT)

This research project will focus on the two Dutch mainport regions, i.e. the Rotterdam-Rijnmond region and the Amsterdam metropolitan region. Both regions are specialized in different sectors and have different spatial and socio-economic contexts. We work from the hypothesis that, while economic diversification and growth opportunities of sectors and firms are important for resilience in both regions, successful transitions towards growing economies need active governance on the interplay between economic and spatial conditions – especially exploiting crossover potentials between the service- and amenities-based urban economies, and the production and distribution based mainport economies.

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Economic and spatial opportunities in metropolitan mainport regions

The Dutch mainport regions find themselves in fundamental transition for two reasons. First, the character of the ports is changing due to fundamental dynamics in logistic technologies, global trade and energy supply.ⁱ Port authorities anticipate on these changes by creating new hinterland strategies and regional port clusters, and by supporting initiatives of private companies concerning production and energy transitions and new types of processing industries. A transition strategy for the port and regional economies can only be successful when supported by an infrastructure of maritime business services, like specialized banking, insurance, logistic support, and by an infrastructure of knowledge institutions. Second, the urban context is changing fundamentally as well. Cities have to deal with labour market dynamics, educational matching and small-scale innovation dynamics alongside the provision of public services for people and firms. Cities therefore increasingly discover the need for coordination at the scale of the metropolitan region. The challenge of these metropolitan regions is to develop coordinated strategies for economic development, skill-based employment opportunities, and well-being for all social classes, mobility infrastructures, amenities and housing.ⁱⁱ

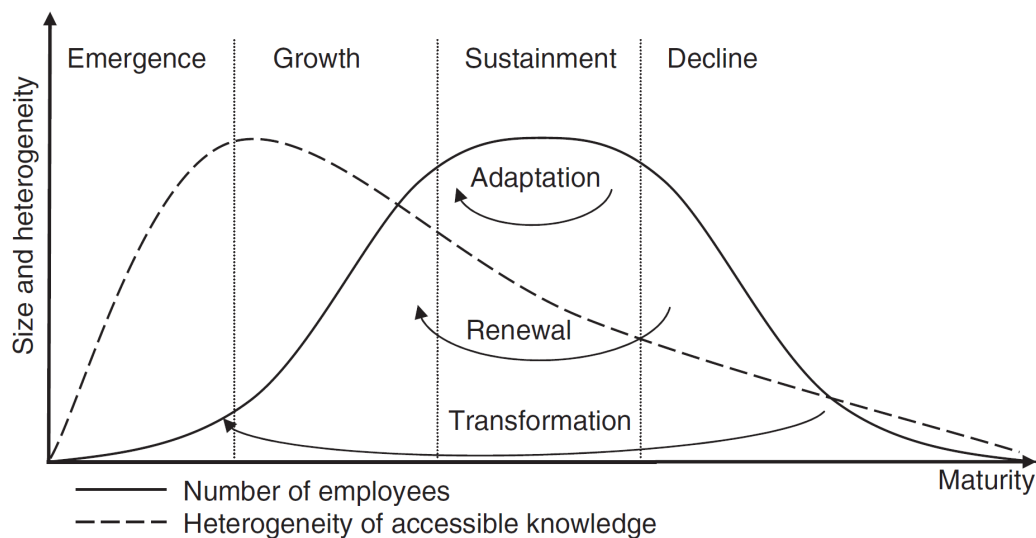
An evolutionary development approach

In (recent) history, the two regions of the Randstad have served as economic growth engines, having a mixture of economic specializations that are productive yet not constantly generating new high-end labour market opportunities.ⁱⁱⁱ We want to work from an evolutionary development approach in which current economic and spatial conditions co-evolve with future restructuring and transition opportunities, in order to identify growth and resilience opportunities

in both regions. In this approach, the quality of regional labour supply, start-up opportunities, cooperation between firms and knowledge institutions, and positioning in strategic trade and knowledge networks form one side of regional entrepreneurial ecosystem. The spatial conditions of living and working environments, third places for interaction, housing, recreational and cultural amenities, and accessibility form the spatial counterpart of this system.^{iv}

This evolutionary view of development is important for both economies to become more economically resilient. Rijnmond is specialized in rather mature and declining clusters in terms of employment and innovation (not in productivity), like the port-industrial clusters, horticulture, distribution, chemical industry and water-related engineering^v (see figure 1). But the notion of diversification is also important in the Amsterdam metropolitan region. This region is also specialized in production and distribution activities (focused on the port economy, food in Zaanstad, flowers in Aalsmeer, and related distribution in Schiphol) that may become affected by restructuring processes. Important growing sectors in the region like ICT, creative industries and financial and business services reach the maturity phase of their cluster lifecycle in the near future as well.^{vi} Transitions towards new sectors and technologies inevitably cause adjustment and embedding issues in both regions.^{vii}

Figure 1: cluster lifecycle



Source: Menzel & Fornahl (2011)

Moreover, the Rotterdam region suffers from a perception of a relatively low-quality spatial and residential environment. The housing market for middle and high incomes is relatively small, yet the supply is larger than the demand. In the Amsterdam region it is the other way around: the housing market for middle and high incomes is relatively large, yet the demand is larger than the supply. Also, amenities are unevenly distributed over the two metropolitan regions, causing the benefits and of consumer related agglomeration economies to be unevenly distributed.^{viii} Governance is organized in several levels on differing subjects in both regions, with varying trust relations between the levels. Therefore,

governance interaction and economic and spatial policies potentially work out differently in the two regions.

In both regions, the links between urban service economies and economic specializations related to the distribution and production activities in the larger metropolitan regions of the mainports are (seen as) crucial.^{ix} This research proposal aims to develop a methodology for the assessment and governance of quantitatively and qualitatively informed and evidence-based development of economic and spatial action-perspectives for policymakers and the entrepreneurial system (and its stakeholders, including firms) for a fruitful relationship between mainports, metropolitan economies and the spatial development of the regions. This inhabits (1) a regional economic (innovation, employment and resilience) context, (2) an internationally networked and value-chain context, as well as (3) a spatial planning context and (4) a governance context. We will pay attention to the four main contexts of the research proposal in more detail.

(1) Regional-economic context: transition opportunities

We want to collect empirical evidence on how the competitive advantages in regional innovation by transitions, local labour market (skills) development and matching cumulates in favour of the two metropolitan mainport regions. The focus in this work package will be on the matching of labour demand in firms with the supply of skilled workers and alumni, in recently identified existing and future growth clusters and sectors in the two regions.^x The mutual embedding of service-based economies and production- and distribution based economies in the two regions and their hinterlands offers unique opportunities to research crossovers fuelled by skilled labour matching, innovative firms, and education in (not exhaustively listed)^{xi}: port related new production, cleantech industry, maritime business services, maritime on/offshore industry, food industry, medical industry, “smart” distribution concepts, biobased and chemical energy, biotechnological horticulture, recycling industry, small-scale manufacturing, water cluster related industries, international law, and diplomatic services. Although in both regions these crossover industries have been recognized, it remains unclear whether locations and firms in cities – both central, like Rotterdam and Amsterdam, and in the region, like Schiedam, Zaanstad and Dordrecht – actually profit in terms of economic development and/or suffer from underutilised crossover potentials. Besides labour matching, our interest focuses on the localization of productive and innovative firms within these sectors, on firm and university (sec and of applied sciences) cooperation, and the co-location and functional linkages of (mainport) production and distribution activities with (metropolitan) business services. Special attention will be paid to multiplier effects of higher-educated employees and lower-educated employees in the two regions.^{xii} City and region effects have to be treated simultaneously, as commuting relations and functional relations between firms make up the metropolitan arena, and locations specialize in different (top) sectors.

(2) Global network context: competitiveness opportunities

Identification of regional positions of innovative and crossover industries in global value chains relevant for port cities is central in this work package. We

focus on investments of MNE's, the embedding of MNE's in local production and service economies^{xiii}, the impact of MNE's on autochthony economic activities, the degree of labour market matching in MNE's, the identification of functions and impacts in the home and host regions, and the influence of communities (ethnic, business, culture) on MNE location decisions. In terms of MNEs we are particularly focussing on commodity traders and maritime business services, as these are highly urbanized activities (and have strong positions in Rotterdam and Amsterdam^{xiv}) yet strongly related to physical flows of goods moving through ports. Commodity traders connect various production networks globally in a tangible way by means of physical exchange, and intangibly by means of transactions and the transfer of information and tacit knowledge. They now also hold key-positions in 'new combinations' of commodities such as biofuels, while maritime business services allow for the assessment of risks and feasibility of various transition projects. We also explicitly want to investigate network positions in value chains of such core industries of the future, strategy formulation for improving these positions, and identification of best practices and policies related to bettering positions. This comprises international comparative research. This work package and PhD trajectory will use international trade data, and innovation cooperation and specific education programme data on designated industries and technologies. Case studies are used for in-depth investigation.

(3) Integral spatial planning context: conditions for transitions

Essential in the territorial development strategies of the regions is that place-based development strategies are determined on the basis of unique features in urban locations in the regions.^{xv} In order to accomplish synergies, earning capacities and added value from coordinated policies on unique local economies, investments in infrastructure in the region are crucial, as well as offering a framework for integrated development avoiding the negative effects of policy competition between sub-regions.^{xvi} We envision that spatial conditions co-evolve with economic conditions of labour market matching, education and knowledge-based cooperation. Sustainable development, circular systems and smart technology are creating large opportunities for business development and innovative crossovers between industries. Port cities are *the* locations to experiment, introduce and valorize such crossovers. 'Cities with ports' are looking for ways to expand their economies, yet a purely consumption-based growth strategy will ultimately come at the cost of lack of accessibility, access to markets and matching labor markets^{xvii}. 'Ports in cities' are in turn confronted with the dilemma that their business model is often simply tailored to facilitating more international cargo flows and traffic, yet often at the cost of the local quality of life and not exploiting functional linkages. The way out of this conundrum is to embrace the opportunities that are now given by the 'Third Industrial Revolution'^{xviii} and the major transitions (filtering down in sectors mentioned in WP1) that are re-shaping our lives. Nearby cities are assets for ports as they provide a local market for the goods to be transformed in ports and they are reservoirs of human capital and business intelligence needed to implement such transitions. Likewise, nearby ports are assets to the urban economy as they remain to give access to international markets and clients, yet now provide the necessary 'transformative' infrastructures and logistical skills to

service the sustainable growth of an expanding urbanized economy: global chains, local gains. This work package explores the metabolism of port-city spaces, and how to facilitate new combinations in the port-city economy through interactive planning and governance. Obvious complexity constraints that have to be addressed with spatial planning are accessibility, flood risk management, energy transition, and the functional relations between the two research regions.

(4) Integral urban governance for transitions

Policies on metropolitan development, networks, infrastructure and agglomeration essentially need good governance structures and practice.^{xix} This work package aims to empirically identify development strategies for regions, cities and sites (and firms functioning in these) that support the transition to crossovers that are key to the future competitiveness of the two regions. The focus is on the specific places, i.e. arenas where such strategies are expected to emerge, become formalized, and reach implementation.^{xx} These are the key places from which (potential) connections between the mainports and metropolitan areas can be traced.^{xxi} The work package will focus on two types of arenas.^{xxii} The first type concerns the more or less formal places of coordination, where decisions are made with a long lead time between action and effect, involving the boards, directors and main representatives of – global and local – public, private and civic stakeholders in the region. Examples of such arenas are the Metropolitan Regions, the Economic Boards, regional economic development agencies, and regional public transport authorities. These are the places where public, private and civic stakeholders meet, discuss and decide on the future development strategies, on perspectives for actions, interventions and initiatives, on development policies for specific sites as well as for the region as a whole. Issues to be studied are how these arenas, their stakeholder configurations and the agenda-setting processes have influenced and may influence the development of crossovers over time. The second type of arenas to be studied are arenas in which decisions are made on specific (re)development sites at the interface of city and port – like locations in Westas Amsterdam, Stadshavens Rotterdam, Wilton-Wilhelminahaven Schiedam, and the Zaanoevers. In these arenas, global and local stakeholders shape hands-on opportunities for developing crossovers favouring city-port synergies on local and metropolitan levels through a long-lasting series of interventions contributing to the development or transformation of these areas. It is in these arenas that tensions with existing institutional frameworks are felt and challenged, and where new or modified rules and roles are tried and tested.^{xxiii} Studying the two types of arenas in close interaction with policymakers and firms themselves will lead to the formulation of “best” action-oriented perspectives.

Notes

ⁱ Jeremy Rifkin (2011), *The third industrial revolution. How lateral power is transforming energy, the economy, and the world*. New York: Palgrave.

¹⁴ Gonzalez Brun e.a. (2011), *Global visions: risks and opportunities for the urban planet*, Singapore: CASA; E. Cook e.a. (2013); *Remaking metropolis. Global challenges in the urban landscape*. Abingdon/New York: Routledge; Maurits de Hoog (2013), *The Dutch Metropolis*. Bussum: Thoth.

- iii Frank van Oort e.a. (2013), "Ruimte voor de stad als groeimotor. Theoretische verdieping, empirische analyse en duiding van beleidsopties voor woon-werkdynamiek in de Randstad". ESD², Universiteit Utrecht.
- iv See the recent contributions of Stam, Van Oort e.a., Van den Berge e.a. and Thurik in the ESB-dossier "Ecosystemen voor ondernemen", 20-11-2014 (nummer 4698S).
- v Anet Weterings & Frank van Oort (2014), "Diversifiëring economie vergroot veerkracht regio Rijnmond". *Economische Verkenningen Rotterdam 2014*: 12-16
- vi Frank van Oort e.a. (2015), *Ruimte geven aan vernieuwing. Arbeidsmarkt crossovers en clusters in de Nederlandse economie*. Den Haag: Ministerie van I&M.
- vii Jeremy Rifkin (2011), *ibid.*
- viii Van Oort e.a. (2013), *ibid.*
- ix For Rijnmond see: Port of Rotterdam (2014), *Havenvisie 2030*; RDM (2015), *Innovatie motor voor haven en stad*, RDM Centre of Expertise, Jacobs (2009), *World Port City Networks*;); Bart Kuipers en Walter Manshanden (2015), *De derde Maasvlakte ligt op het Weena*, EVR2015; for Amsterdam see: Leerling e.a. (2015), *De Westas – daar draait het om*, Amsterdam Logistics Board, Gemeente Amsterdam (2011), *Structuurvisie Amsterdam 2014 – Economisch sterk en duurzaam*; Jacobs e.a. (2012), *Amsterdam Smart Port in Global Trade*; TNO/VU (2015), *Economische Verkenningen Metropoolregio Amsterdam*; Metropoolregio Rotterdam Den Haag (2014), *Metropoolvorming: kansen en opgaven*.
- x Van Oort e.a. (2015), *ibid.*
- xi Based on policy documents and recent research, e.g. EVR (2015), RDM (2015), ALB (2015), Van Oort e.a. (2015), *ibid.*
- xii Enrico Moretti (2012), *The new geography of jobs*. Boston: mariner Books; finds a multiplier of 1:5 in the USA (one higher educated employee co-occurs with 5 lower educated employees in catering, security, cleaning, etc.). For the Netherlands this has not been researched in a satisfying way yet.
- xiii Compare Wouter Jacobs e.a. (2014), "Co-agglomeration of knowledge-intensive business services and multinational enterprises". *Journal of Economic Geography* 14: 443-475; Jacobs e.a. (2011), "The location and global network structure of maritime advanced producer services", *Urban Studies*, 48: 2449-2669
- xiv Wouter Jacobs (2014), Rotterdam and Amsterdam as Trading Places? In search of the economic geographical nexus between commodity chains and world cities, *Tijdschrift voor de Sociale en Economische Geografie*, 105: 483-491.
- xv David Neumark & Helen Simpson (2014), *Place-based policies*. NBER Working Paper 20049.
- xvi Patrick Witte (2014), *The corridor chronicles*. Universiteit Utrecht; Frank van Oort e.a. (2015), *De concurrentiekracht van Nederlandse steden: van agglomeratiekracht naar netwerkkracht*. Den Haag: Plafrom31
- xvii Frank van Oort & Ton van Rietbergen (2014), "De consumptiestad die werkt". *Rooilijn* 47: 60-67.
- xviii Rifkin (2011), *ibid.*
- xix See: RLI (2013), *Sturen op samenhang. Governance in de metropolitane regio Schiphol/Amsterdam*. Den Haag: RLI.
- xx Daamen, T.A. (2010), *Strategy as Force. Towards Effective Strategies for Urban Development Projects: The Case of Rotterdam CityPorts*. Amsterdam: IOS Press; Daamen, T.A. (2007), 'Sustainable Development of the European Port-City Interface'. *ENHR: European Network of Housing Research Conference*, June 25-28, Rotterdam.
- xxi Van Bueren, E. M., Klijn, E. H., & Koppenjan, J. F. (2003). Dealing with wicked problems in networks: Analyzing an environmental debate from a network perspective. *Journal of Public Administration Research and Theory*, 13(2), 193-212; Koppenjan, J. F. M., & Klijn, E. H. (2004). *Managing uncertainties in networks: a network approach to problem solving and decision making*. Psychology Press; Verheul, W.J. & T.A. Daamen (2014), 'Stedelijke ontwikkeling als een emergente adaptieve strategie'. *Bestuurswetenschappen*, Vol. 68, No. 3, pp. 68-88
- xxii In 't Veld, R. (2013). *Transgovernance: the quest for governance of sustainable development* (pp. 275-310). Springer Berlin Heidelberg.
- xxiii Daamen, T.A. & E. Louw (2015), 'The Challenge of the Dutch Port-City Interface'. *Tijdschrift voor de Sociale en Economische Geografie*, forthcoming (accepted); Daamen, T.A. & I. Vries (2013), 'Governing the European Port-City Interface: Institutional Impacts on Spatial Projects between City and Port'. *Journal of Transport Geography*, Vol. 27, February 2013, pp. 4-13; Smith, A. (2007). Translating sustainabilities between green niches and socio-technical regimes. *Technology Analysis & Strategic Management*, 19(4), 427-450; Van Bueren, E., & Broekmans, B. (2013). Individual projects as portals for mainstreaming niche innovations. In: Hoffman & Henn, *Constructing green: The social structures of sustainability*, 145-168, MIT Press.