Mapping emerging stabilisation in genomics

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With the rise of genomics we see conspicuous changes in the landscape of medical genetics research, including the creation of large scale consortia, the use of high throughput technologies, strategic public investments, public-private relationships, large genetic databases serving as links between academic and commercial interests, and a strong public policy emphasis on knowledge valorisation.
Our research aims at understanding these developments as the evolvement of a new 'innovation regime'. An innovation regime we define as a complex of coordination rules on how to act and interact in networks of innovation and value creation. These rules are embedded in knowledge institutions, such as visions, expectations, agendas and past achievements and result in particular patterns of innovation. Networks of innovation we consider as coordinated sets of heterogeneous actors - research institutes, universities, hospital clinics, firms, regulatory bodies and patients - which participate collectively in knowledge production, appropriation, translation, and valorisation.
Based on this conceptualisation we map regime changes in the landscape of medical genetics with a specific tool designed to trace emerging stabilization. This tool is developed in the context of the sociology of expectations and positioning theory, where it serves to characterise emerging technological fields. We adapt this tool by distinguishing four modes of institutionalisation: shared visions, shared expectations, collective agendas and collaborations. This distinction reflects a scale of increasing stability. An analysis of texts produced by various kinds of actors shows how interests in particular research topics or technological opportunities are governed by these modes of institutionalisation. Time-scale analyses thus reflect emerging (de)stabilisation of such interests. We also show how actor relations are subject to the same modes of institutionalisation. In statements about possible, plausible or desirable futures, actors position both themselves and others. This happens both among and between actors of various kinds (researchers, firms, clinicians, policy makers). Time-scale analyses are also done to map the institutionalisation of actor relations. In this way, spaces for learning and probing can be characterised in terms of emerging and established research topics and technologies in the field, the kind of actors occupying innovation networks around these topics and technologies, and the institutionalisation of relations between actors in these networks.
The results of this mapping exercise are used to explain how regime changes in the medical genetics landscape amount to new patterns of knowledge production, innovation and value creation. One of the final aims is to assess the role of valorisation policies in the emergence of these patterns.