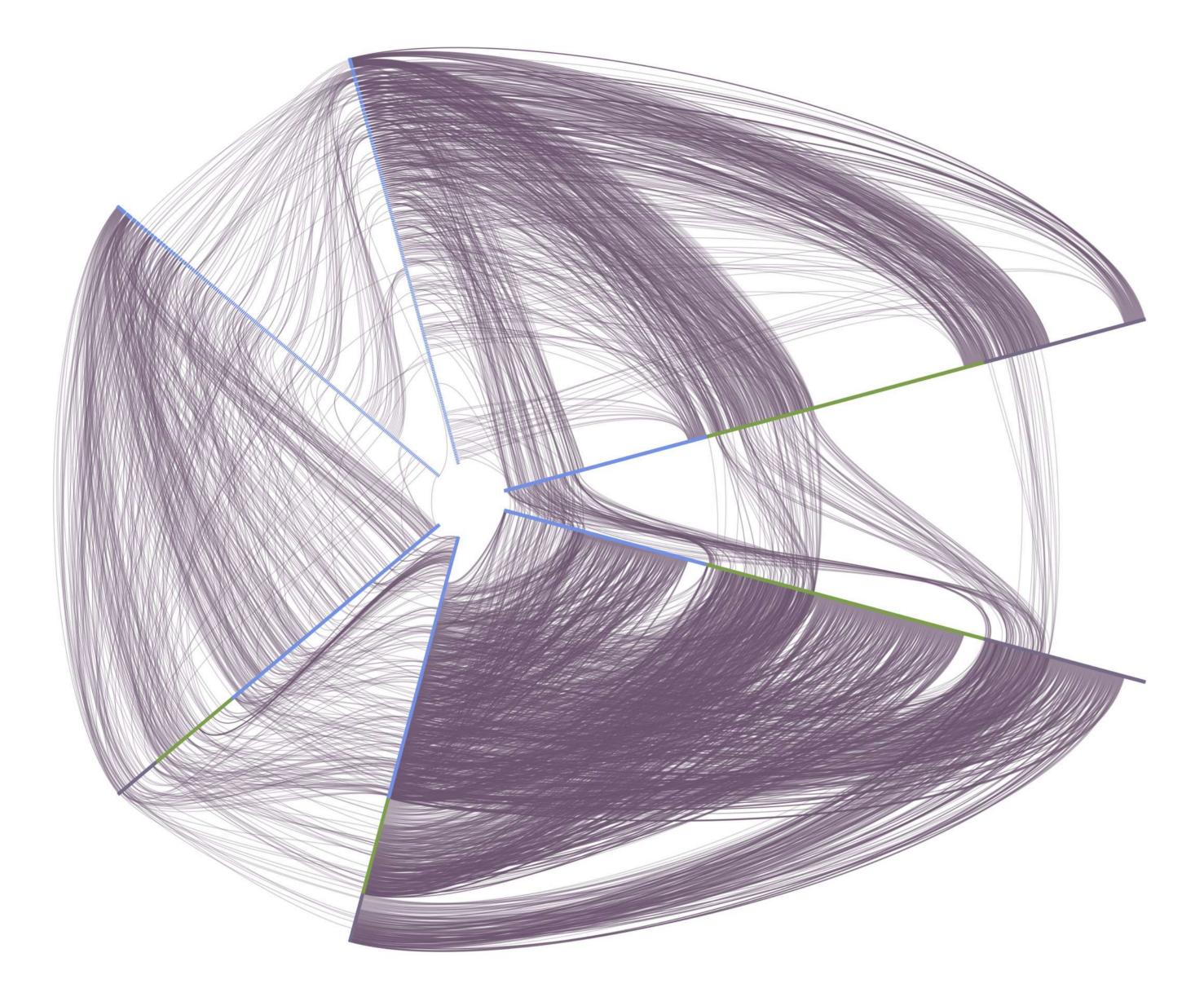
Markus Wallinger Hsiang-Yun Wu

## \kā-päp\: popular music originating in South Korea and encompassing a variety of styles



## **K-POP Dataset**

The K-pop data set consists of approximately 4.800 entities consisting of record labels, artists and groups of the growing Korean music scene. The data was extracted from user-created databases and the connectivity is based on the entity relationships in 2015 [Broadwell et al. 2016].

Each entity belongs to one of the following categories: male, female, unknown, record label, or group. We consider male, female and unknown to be artists.

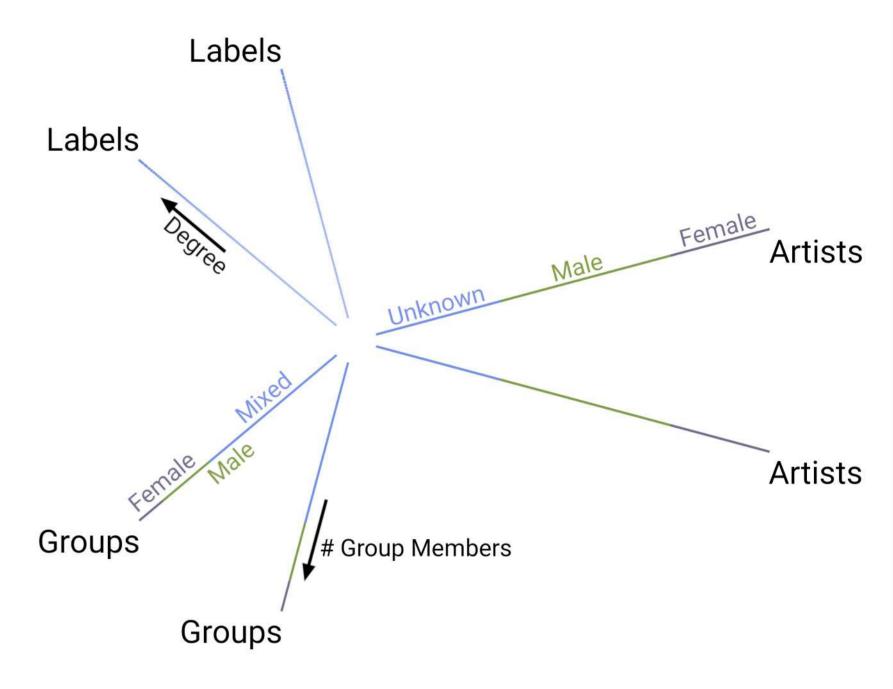
A connection between entities reflects a relationship. For example artists or bands that collaborate, artists being members of groups, groups or artists under contract by a label, or labels that are subsidies of other labels.

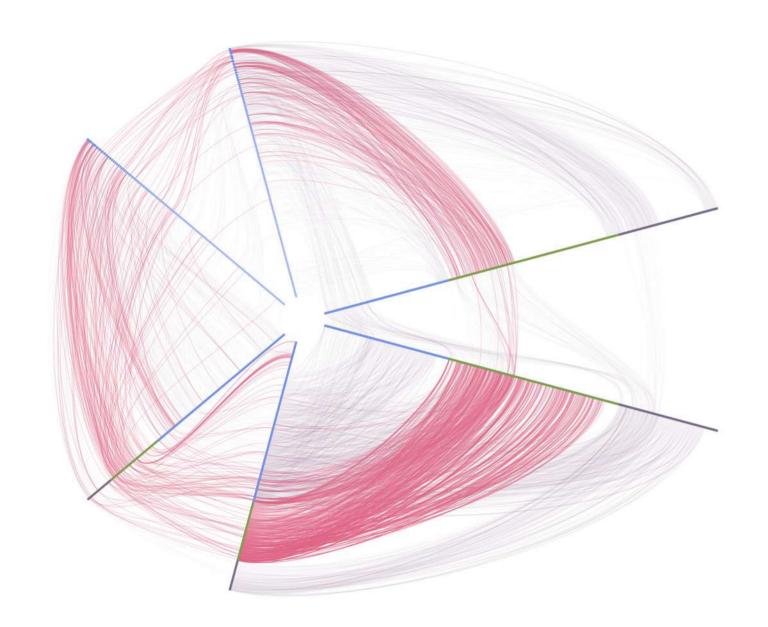
The hive plot is a visualization method that can be used to visually explore and compare networks. [Krzywinski et al., 2011].

We extracted subgraphs of the data set, visualize each as hive plots and use the resulting plots to compare or infer trends in the data.

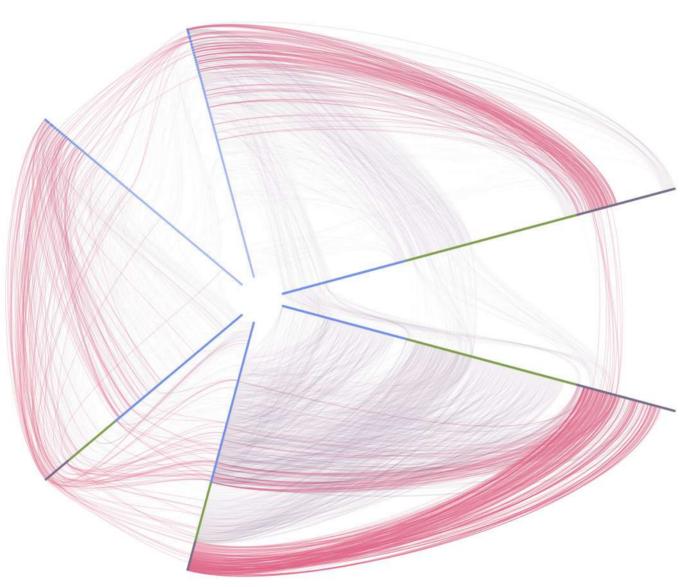
## **How To Read Hive Plots**

Entities in the network are representeded as nodes that are placed on radially oriented axis with a coordinate system based on properties of the network. Each node is assigned one of three axis dependent on the type. To also show connections between nodes placed on the same axis, we clone each axis resulting in a total of six axis. Connections between nodes are represented as curves.

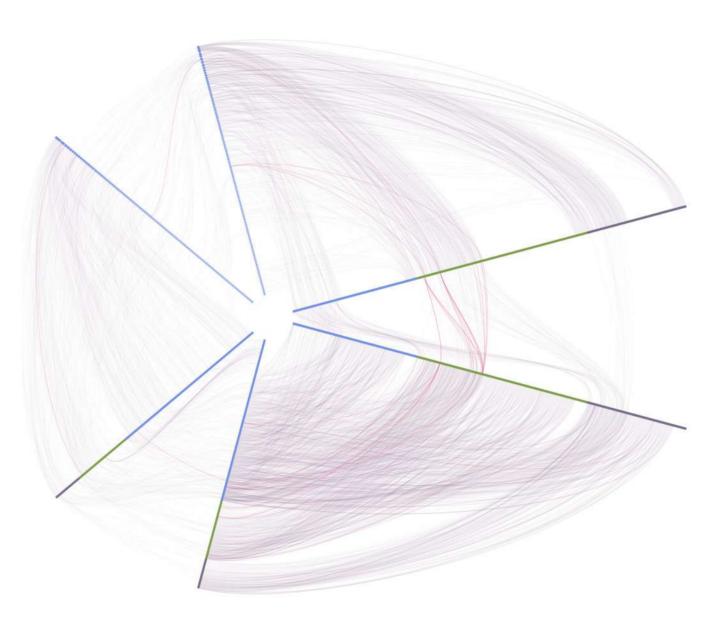




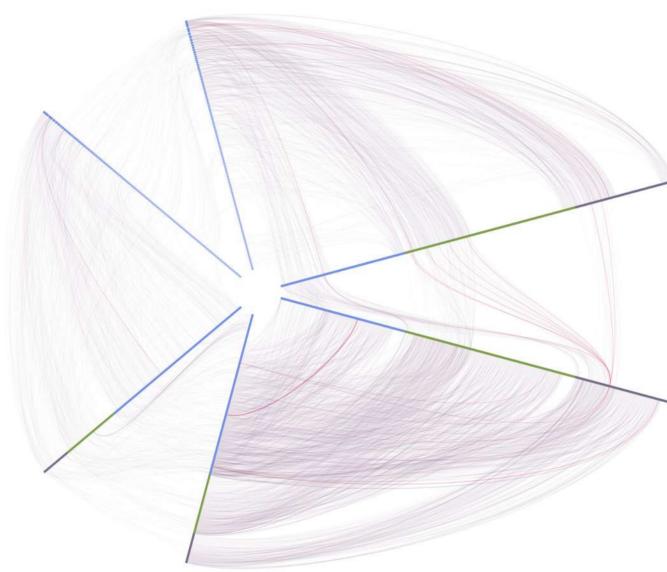
The filtered plot of male artists and their direct connections. Smaller labels are more inclined to take male artists under contract.



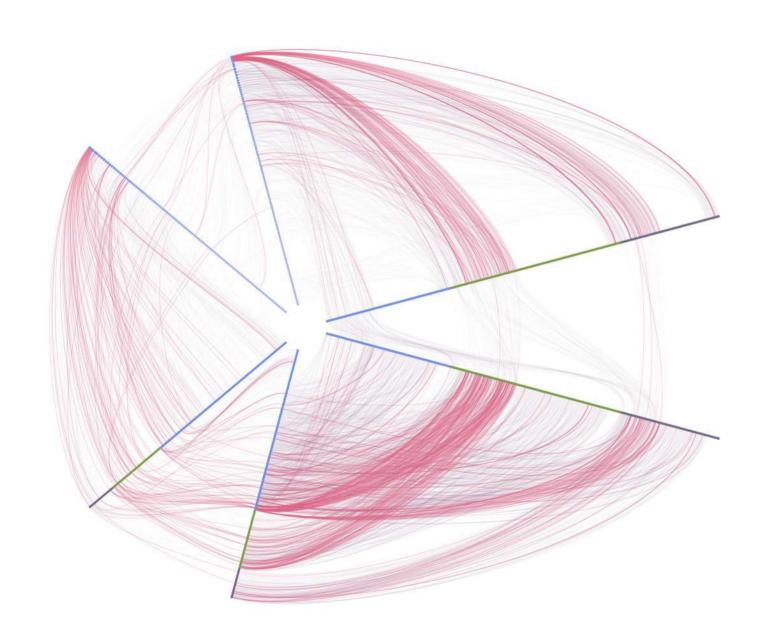
The filtered plot of **female artists** and their direct connections. The major labels focus more on female artists.



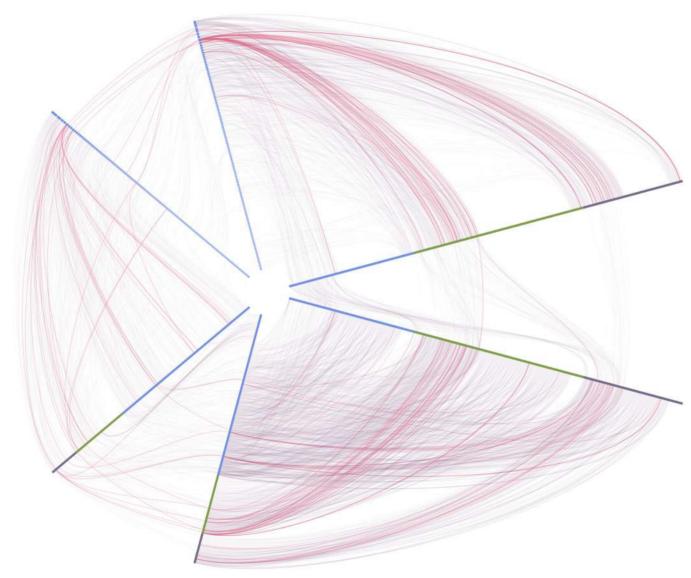
The male artist with most collaborations is Dok2, a rapper and producer. He collaborated only with male artists, which suggests the existance of a male-dominated rap scene in South Korea.



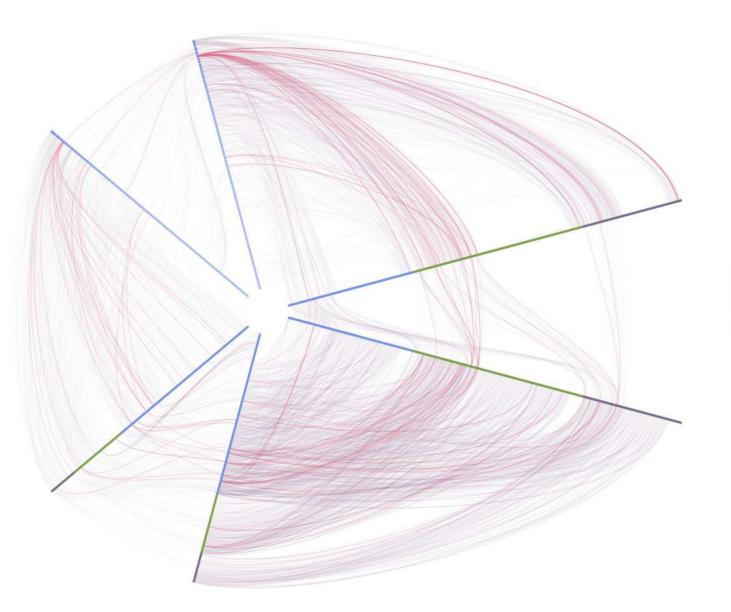
IU has the most #1 hits on the Korean billboard charts. The plot suggests that she mainly collaborates with male artists in mixed groups from the same label.



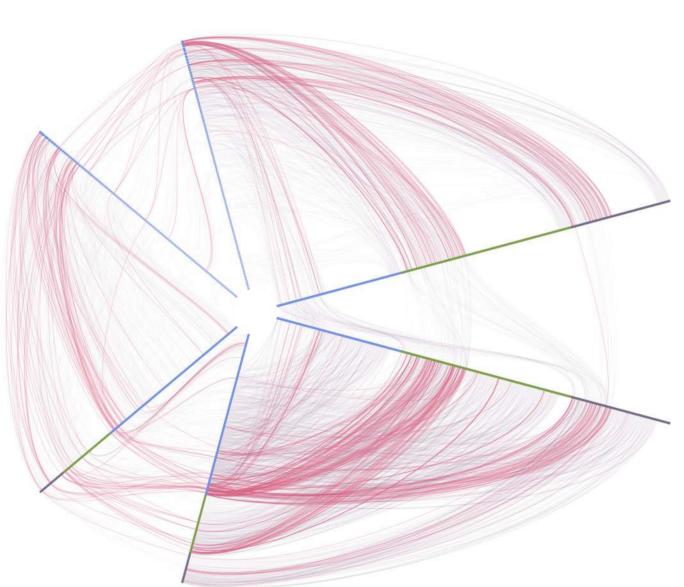
S.M. Entertainment is one of the biggest three record labels. Their lineup of artists and groups is balanced between the different genders. Their strategy of promoting artists through collaboration with other groups is visible in the plot.



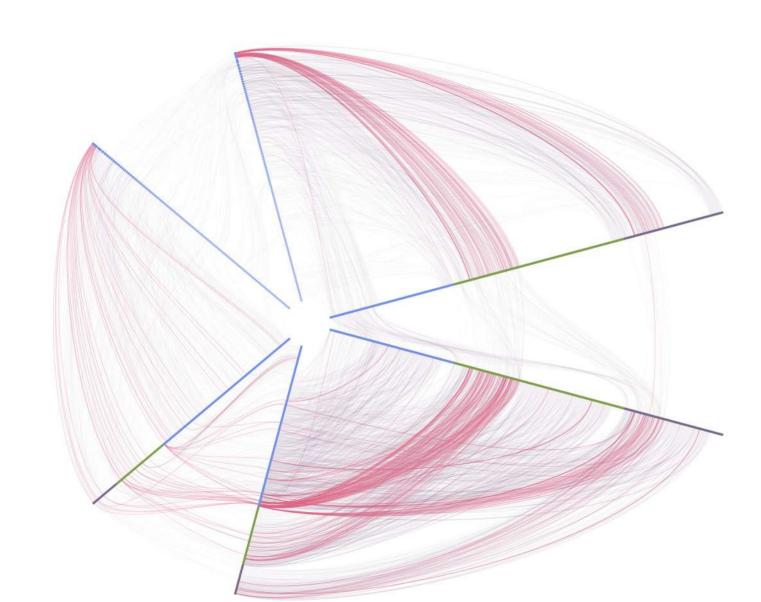
JYP is a label with several high-profile groups and artists. Their strategy compared to S.M. Entertainment seems less focused on collaboration between groups as well as artists.



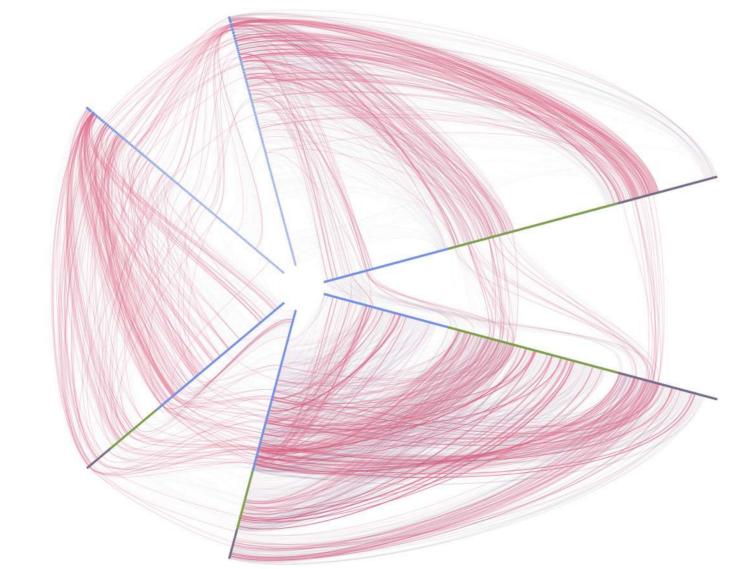
YT Entertainment has several high-profile artists and groups, such as Psy, under contract. The label-label connections reflect labels that are solely used to promote artists and groups in other markets than Korea.



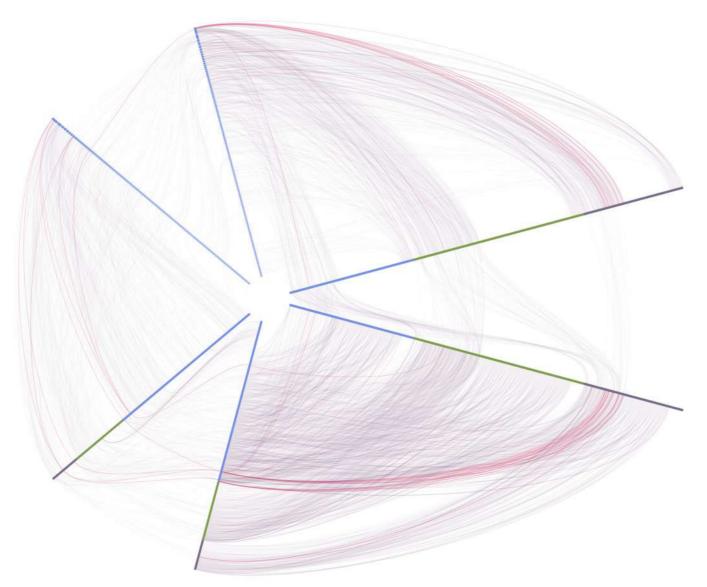
KT Music specializes on production and distribution of music. Their popular streaming service is used by other labels to distribute their music, as seen in the connection to other major labels, artists and groups.



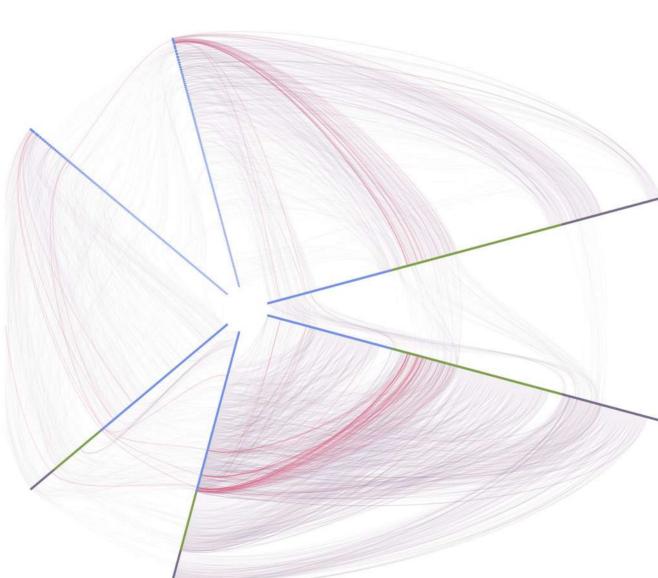
SMTown is a group used to promote other artists under contract by S.M. Entertainment. 86 artists collaborated or were part of SMTown - nearly all artists are under contract by S.M. Entertainment.



LOEN Entertainment is a jack-of-all-trades company. It acts as a record label, talent agency, production company and music publishing company. This is visible with its many connections to artist, groups and other labels.



Girls' Generation is a popular all-female group. The marketing effort to other markets is visible in their connection to multiple labels. Three of its members form a sub-group called **Girls' Generation-TTS**.



**EXO** is a well-established group. It is split into two sub-groups for promotion in different markets.