There's a reason why, in the US, politics gravitates around Washington, tech in San Francisco, and Finance in New York. If one of those cities wanted to take a vertical from their rivals, they would have to invest very heavily and execute excellently to beat the network effects. What can we learn about this dynamic for Web3?

Based on RnDAO's research on social system design and Web3 business models, we propose that Business Clusters (vertically-focused communities, grants, and services) should be a key consideration in Arbitrum's strategy. Moreover, we suggest that Web3 allows to supercharge Business Clusters by turning them into Swarms (cross-ownership networks of modular and composable projects), thus compounding network effects.

Why choose and be intentional?

As the L2 market becomes more competitive, it's natural for chains to focus. Past a certain point, sufficient defensibility might not come from technical differentiation. Still, it can certainly come from Business Clusters - a technique that leading nation-states and cities have used for a while.

Business Clusters rely on generating network effects instead of coercive policies to attract and retain talent and businesses. And are usually archived by facilitating:

- Clear branding and reputation for a specific vertical(s)

- A grassroots community that is collaborative, passionate, and knowledgeable about the vertical

- Systems and services that facilitate cross-org collaboration.

By emphasizing community and autonomy (using carrots instead of sticks), Business Clusters align well as a strategy with the ethos of Web3 and the critical needs of L1s and L2s.

How many Business Clusters can an ecosystem pick?

We make a parallel between regions (North America, Europe, etc) and L1s, and a parallel between cities and L2s.

A Hub (country or city) can pick as many bets as it can likely succeed at. The question here is one of capability. Wealthy hubs often invest in multiple business clusters, but each bet needs to be carefully calibrated to be a winning bet. For example, in the UK, London leads in Finance, Culture, and Politics, and these multiple verticals compound to attract talent, capital, and businesses. However, if London wanted to become the leading hub for BioTech, it would have to outspend Cambridge and Oxford in natural sciences R&D, not easy. At the same time, London is competing with cities in USA, France, Germany, and more, so it needs to pick its bets well and is often aided by UK-level funding.

What does it mean to pick a bet?

London did very well in FinTech, becoming this vertical's #1

hub in Europe. This was facilitated through programs such as Innovate Finance and related institutions, which provided ecosystem development services by

- deploying business grants,

- partnership facilitation services,

- talent attraction campaigns,

- and funding research (via universities for foundational research and via innovation agencies and knowledge transfer programs for applied research).

Which verticals should Arbitrum pick?

Note: This is a back-of-a-napkin analysis to illustrate the considerations and make the concept actionable instead of theoretical. A more thorough analysis could be carried out as part of the strategy-making process.

[

Screenshot 2024-02-06 at 09.28.52

1185×329 46.4 KB

](https://global.discourse-cdn.com/standard17/uploads/arbitrum1/original/2X/5/5b992fb495dfdfe2e7f59ead2f27a41fa0ec2d12.png)

Supercharging Business Clusters through Swarms

Generally speaking, with higher collaboration (and some healthy competition), the use of resources in an ecosystem becomes more efficient, helping a business cluster advance. And with higher enmeshing, it becomes harder for projects to migrate as they would require their partners to migrate, too.

However, most Web2 businesses operate as walled gardens. Membership tends to be binary (you're either an employee or not), market insights are guarded, the data and source code are kept locked. This reduces the potential for collaboration and enmeshing between businesses and as such, developing Business Clusters with Web2 methods caps the potential of an ecosystem.

Web3 gives us the possibility to supercharge the benefits of collaboration and enmeshing when we turn business clusters into "Swarms" by nurturing:

- Modularity and composability

- Incentive alignment between projects

- Open teams (so talent and ideas can better flow between them)

This can be achieved through Business-Cluster focused venture builders, such as the Co.Lab - current pilot run by RnDAO with funding from PluralityLabs. In this pilot, we

- Focus on Collab Tech as a vertical as it serves as a foundational capability for Swarming.

- Facilitate a pipeline for builders to create sustainable ventures through 1) funded fellowships for builders to validate a problem (and share the research publicly to attract community). 2) a venture-building program so the builders selected can validate a solution to the problem they researched.

- We take a stake in the ventures (not in the fellowships) and use it to create cross-ownership between them, thus facilitating incentive alignment, which leads to further collaboration and integration.

- Throughout the pipeline, we educate builders on Swarming methodologies, help them develop strategies for modularity and composability, and further enmesh and support one another.

Swarms build on top of the learnings from Keiretsus (cross-ownership enmeshing of businesses in Japan that has yielded a powerful Automobile Business Cluster with players such as the Mitsubishi Group and Toyota) as well as leading approaches for innovation such as Haier's (Chinese corporation having leveraging a network of micro-enterprises and collaborative platforms and methodologies to become the #1

IOT company in the world, further solidifying China's Hardware Business Cluster).

Conclusion

Business Clusters provide a powerful, tried-and-tested methodology for open ecosystems to generate network effects. By combining Business Clusters with Web3 capabilities, we create Swarms and supercharge collaboration and enmeshment, further increasing network effects and sustainable innovation.

A pilot of this approach is already underway through the Arbitrum Co.lab by RnDAO (funded by Plurality Labs). By focusing on Collab Tech, the Co.Lab is building the foundations that enable Arbitrum to replicate the Swarming methodology in other Verticals and compound network effects for attracting and retaining talent, capital, successful projects, and generating more and more sequencer fees.