CREATING COLLECTIVE VALUE IN CLUSTERS

CLUSTER ORGANIZATION MODEL

A PLAYBOOK

Clusters4Regions

The **Clusters4Regions** initiative is implemented by the **Ukrainian Cluster Alliance** at the request of the **Ministry of Economy of Ukraine**, with the support of the Swiss-Ukrkraine's Cohesion & Regional Development" (U**CORD)**.

CONTENT

INTRODUCTION: The Logic and Evolution of the Cluster Model

"How do we create and develop a cluster organization?" This is the most frequent question the Ukrainian Cluster Alliance (UCA) has faced over the past five years. While we have always shared our extensive experience and methodological tools, we recognized the need for a more fundamental, holistic framework – one that explains the core essence of a cluster organization and aligns "trendy" concepts like management standards, innovation, and the **Twin Transition**.

Traditional business logic or universal management techniques often lead to oversimplifications that eventually hinder growth. This **Playbook** was born to bridge that gap. Driven by the **Clusters4Regions** project and enriched by the *Best Practices Guide*, this document provides concrete evidence of what actually works within the Ukrainian context.

Our model is built upon collective experience and observations of mature ecosystems worldwide. It is not a "copy-paste" of a foreign system but a structured attempt to capture the management logic already emerging in our own clusters.

The Goal of this Playbook: To provide a common language for explaining the role of clusters, the logic of their operations, and the conditions for sustainability and impact. It is a strategic tool for managers, leaders, and stakeholders navigating collective action in an era of complexity and uncertainty.

The Model's Four Interconnected Blocks:

1. **The Core (Logic):** The rationale for creating collective value and the cluster's role in the ecosystem.
2. **Interaction Architecture:** Mechanisms for joint action, governance, and services.
3. **Capability Architecture:** Conditions for financial sustainability and scaling.
4. **Results & Impact:** Building legitimacy and the capacity to transform the ecosystem.

Together, these blocks form a holistic model that allows clusters to go beyond service and project logic and move into the role of institutions of collective action.

This document offers a "management lens" to help clusters define their market role, make coordinated decisions, and build long-term trust. It is designed for both newcomers launching their first cluster initiative and seasoned experts seeking to align their organizations with global standards.

The management team of the Ukrainian Cluster Alliance sincerely thanks the involved experts and clusters for their recommendations and feedback, as well as numerous examples.

Oleksandr Yurchak, CEO of the Ukrainian Cluster Alliance

GLOSSARY OF TERMS

- **Cluster:** A voluntary association of interconnected economic entities, enterprises, and institutions interacting within a **Value Chain** to increase operational efficiency, product competitiveness, export potential, and the economic development of a region or country. A cluster can function within a single industry or at a multi-industry level and can be territorially local or interregional.

  Note: *According to Michael Porter, the founder of cluster theory, clusters do not need to be "created" in the sense of connexion of market actors; they already exist as economic entities interacting as suppliers and buyers. The initial task for experts is to identify this potential (see* ***Cluster Mapping****).*

- **Cluster Organization:** A legal entity that supports and strengthens cooperation among cluster participants within existing and new chains. It improves the quality of network interaction, connects production actors with the innovation ecosystem, and serves as a provider of services that stimulate networking, innovation, and the **Twin Transition** (digital and green) for SMEs.

- **Cluster Initiative:** An organized process of creating and supporting a cluster with the involvement of all stakeholders. Typically, a cluster initiative precedes the formation of a formal cluster organization and is often based on an analysis of the sectoral potential.

- **Interested Parties (Stakeholders):** Representatives of government, civil society, and business who:

  - Are affected by the industry's problems or will be impacted by the proposed solutions;
  - Can participate (or have participated) in solving problems or implementing decisions;
  - Possess specialized expertise in a specific field.

- **Cluster Policy:** A formal representation of political commitments and agreements regarding cluster development at the state level. Policies serve as **frameworks** that remain open to dynamic adjustment from both the bottom-up (business) and top-down (regional/central government). They combine rules, development programs, and support instruments.

- **Cluster Projects:** New joint scientific, technical, or production projects implemented by cluster participants. These can be carried out at the regional, national, and international levels.

- **Internationalization of Clusters:** International cooperation facilitated by strengthening ties between cluster and business networks across borders and industry frameworks. This helps participants, particularly SMEs, integrate into **Global Value Chains**.

- **Regional Cluster Development Program:** A strategic document defining the directions, measures, and local government tools used to support cluster development in a specific region.

- **Cluster Mapping:** The process of collecting, analyzing, and visualizing data regarding clusters, their interconnections, potential, and economic impact. It is used to determine strategic directions and inform management decisions.

- **Cluster Policy Tools:** Mechanisms or means used by state or regional authorities to support cluster development. These include financial incentives (grants, tax breaks), regulatory acts, and organizational mechanisms (such as the creation of cluster initiatives).

References:

[1] Cabinet of Ministers of Ukraine. Resolution of the Cabinet of Ministers "Some issues of developing regional development strategies and action plans for their implementation and monitoring the implementation of the said strategies and action plans" dated 04.08.2023 N 816

[2] Methodological recommendations on the application of smart specialization at the regional level

Typical Challenges Of Cluster Organizations

Standard business models often fail to solve the practical problems of cluster development. Here are real-world examples from the UCA:

1. **The "Vicious Circle" of Value:** Clusters often struggle to create enough value to justify membership fees. Without advanced services, they cannot attract fees; but without fees, they cannot afford the 2-3 highly qualified managers needed to build those services.
2. **The "Grant-Eating" Trap:** Relying solely on grants often fails to produce sustainable services. Many clusters begin to live "from project to project", while members become a mere "background" or decoration for grant activity, distorting the original purpose of clustering.
3. **The Governance Gap:** Cluster managers are often overloaded with advocacy, international relations, and strategy. While Boards should handle these tasks, business representatives on the Board often "simply have no time".
4. **The PR Mirage:** Many clusters focus on self-promotion without tracking or communicating the actual value they create for participants.
5. **Lack of Expert Infrastructure:** The community still struggles to create specialized committees or resource centers where strong experts play a key role. Many issues remain unresolved due to a lack of expertise in methodology, cluster management standards, and leadership.

The root of these problems is the lack of a holistic model for creating collective value.

Without a clearly defined role in the ecosystem, services begin to replace the model rather than support it.

Accordingly, this playbook does not describe the business model of a separate organization focused on making a profit by a single owner or a narrow group of private individuals. It is about something else – how to create an operating model for creating collective value in business associations, where there may be hundreds of members.

General Overview of the Model

This model describes a cluster as an **Institution of Collective Action** in complex ecosystems. It consists of four interconnected blocks (Fig. 1).

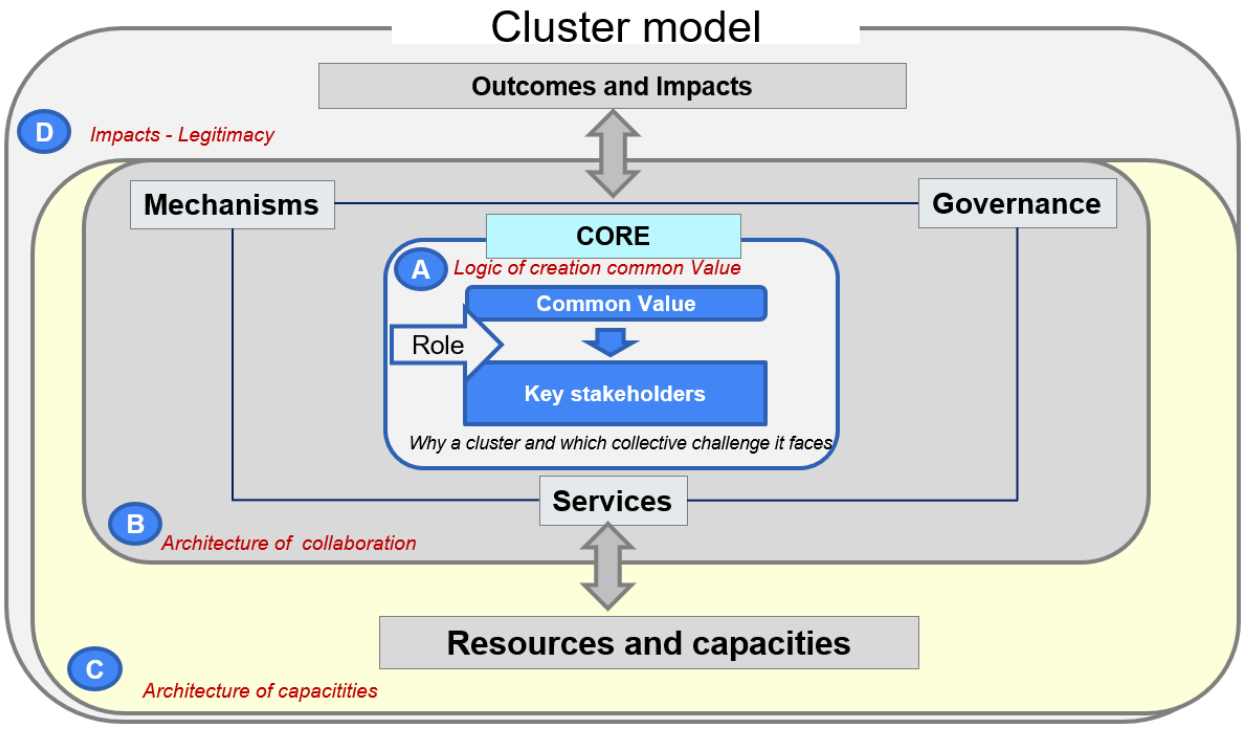


Fig. 1 General cluster model decomposed into 4 blocks.

4 interconnected blocks show how collective value is created, maintained, and grown in a cluster:

- **Block 1: Core (Value Creation Logic):** Why does the cluster exist, and what common challenges does it face?
- **Block 2: Operating Model (Interaction Architecture):** What operational mechanisms and governance are needed to create this value?
- **Block 3: Value Capture & Enabling:** How do we secure the resources (financial and human) to maintain and grow value sustainably beyond grant cycles?
- **Block 4: Impact & Legitimacy:** What is our impact on the industrial, regional, and innovation ecosystems?

Core Logic: We cannot create high collective value without a proper operating model, which in turn must be adequately resourced. Only then can we achieve significant impact on the regional or sectoral economy within our chosen boundaries.

Now let's start revealing the details.

BLOCK 1. CORE - VALUE CREATION LOGIC

This block addresses the fundamental question:

☞ **Why does the cluster organization exist, and what role does it perform within its ecosystem?**

This is the core from which all subsequent strategic steps logically flow.

Key Logic of the Block: Collective value in clusters is not a single product, service, activity, or project. It is a ***solution to a problem or a new opportunity on an ecosystem scale*** that cannot be realized by any entity acting alone.

This value is created primarily for **businesses**, which form the foundation of any cluster (**SMEs**), as well as other categories of participants: educational and scientific institutions, regional government actors, and other market players, including large corporations or international organizations. Within this ecosystem, the cluster organization has a distinct role: it is not the executor or the owner of the solution, but rather the **platform, coordinator, or "orchestrator"** of collective action within its industrial ecosystems*.

The general UCA framework, which we have presented consistently since our inception, clearly explains the role of clusters as orchestrators.

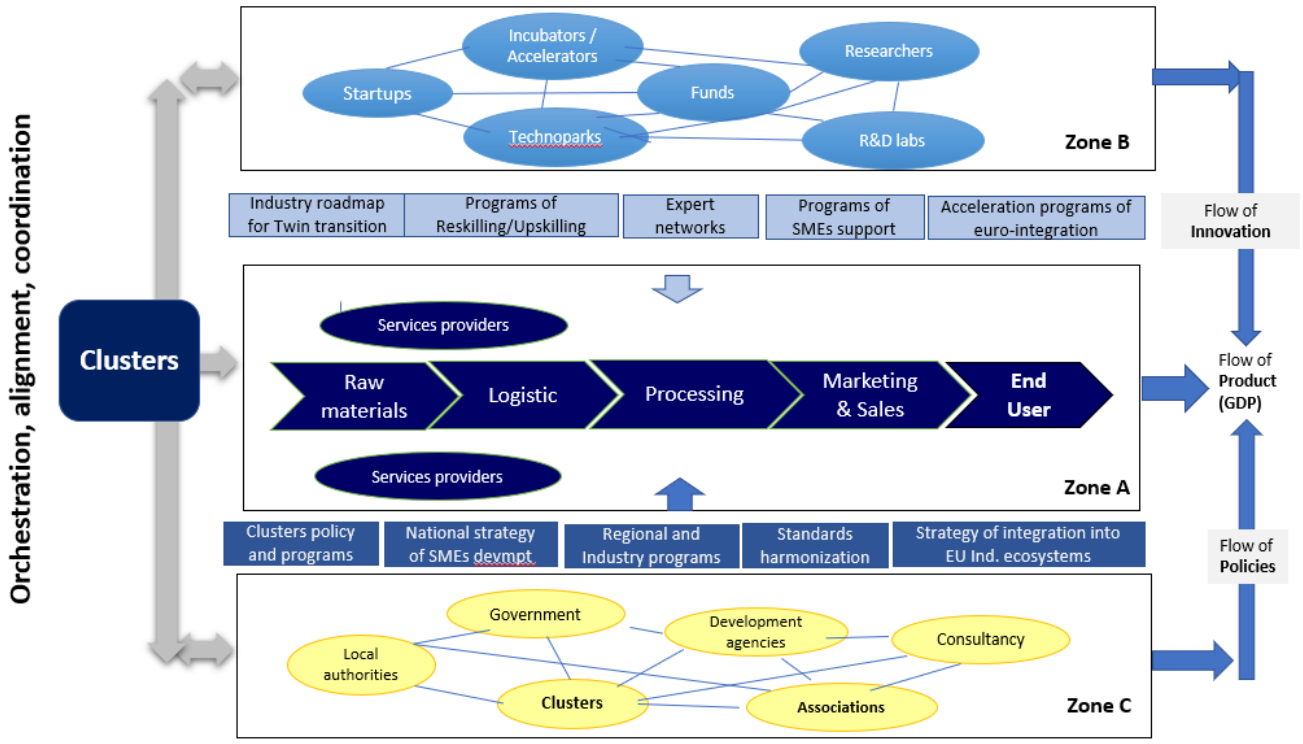


Fig. 2 Framework showing the role of clusters as orchestrators of industrial ecosystems.

This value is not created for everyone simultaneously. It features different dimensions and configurations depending on the cluster's maturity and its target stakeholder groups. **Industrial ecosystem orchestrators** fulfill a unique role with several key functions derived directly from Fig. 2:

- **Mapping the Value Chain (VC) and the entire ecosystem:** Identifying gaps and growth points.
- **Establishing connections across the VC:** closing structural gaps.
- **Collaborating with innovation ecosystem actors and service providers:** Strengthening the VC and creating conditions for increased resilience, innovation, and the **Twin Transition**. Together, these factors enhance the competitiveness of SMEs and the entire Value Chain.

This framework also highlights that **Business** – those who create real added value within the VC – is the **No. 1 target group**. However, determining exactly *which* businesses (which links in the chain) are the priority usually requires specific adjustment and tuning.

Many Ukrainian clusters have already embraced this orchestrator role. The article *"Changing Narratives"* highlights prominent examples:

- **APPAU:** Consciously positions itself as the "orchestrator of the national Industry 4.0-5.0 ecosystem", creating a strategy that impacts multiple sectors even without state support.
- **Lviv IT Cluster:** Developed the "IT Arena" not just as a large-scale event, but as a strategic tool for positioning the entire national IT sector.
- **Kharkiv IT Cluster:** Engaged dozens of universities to align IT training programs with national standards, directly impacting the flow and quality of talent across the industry.
- **Ukrainian Association of Furniture Manufacturers (UAFM):** Operates on a national cluster model, creating large-scale export programs and professional growth schools that transform the entire furniture manufacturing market.

Analysis of best practices as of 2026 shows that roles are defined not just by "static" long-term positioning, but by an **awareness of specific tasks** in concrete projects. We identify at least four basic roles:

1. **Facilitator:** Builds trust and interaction (e.g., Heat Energy Cluster of Ukraine (TCU), Kharkiv IT Cluster).
2. **Broker:** Connects supply and demand (TCU, APPAU, Ukrainian Industrial Cluster).
3. **Service Operator:** Manages shared services and platforms (U-Food, Lviv Medical Cluster).
4. **Architect:** Drives systemic changes in the industrial ecosystem, region, or sector (APPAU, Podillia Fashion Cluster).

All these roles fit into a broader **"Mega-Role"**:

the Organization of Collective Action

In other words, the cluster creates what businesses cannot achieve on their own: **shared chains, shared branding, shared standards, and joint investments.**

Comparing Logic: Business Model Canvas vs. Cluster Model

To understand cluster modeling, it is essential to see how this logic differs from Osterwalder's traditional Business Model Canvas (BMC):

Business Model Canvas (BMC)	Cluster Model
Value Proposition is designed for specific customer segments.	**Collective Value** is formed for the entire ecosystem.
Focuses on the logic of a **single organization**: how it creates, delivers, and captures value.	Focuses on **collective action** and **shared assets** that a single organization cannot provide.
The organization is viewed as the **primary provider** of services to its segments.	The cluster organization acts as the **Orchestrator**: services may be provided by other ecosystem actors or delivered jointly.
The organization and its participants operate in a **competitive field**.	The organization views the ecosystem as a **field of cooperation**. (Employs **Co-opetition** where necessary).

☞ A cluster does not have a "client" in the traditional business sense because it does not create a market product. Instead, clusters often operate under **co-opetition** (simultaneous competition and cooperation). While there is selective competition for resources or influence, clusters prioritize the **logic of ecosystem cooperation.**

** Note: Here and throughout, "industrial ecosystems" refers to any industry or sectoral ecosystems (including cross-sectoral or technological ones like the circular economy or cybersecurity). The term "Industrial" is derived from the broader concept of "Industry" (sectors) and does not refer exclusively to manufacturing.*

Case Study APPAU: Transitioning from Service Logic to Orchestration

The evolution of APPAU illustrates the typical path of mature associations. For years, the organization operated under a **service support logic**: organizing events, expert activities, international missions, and projects. While this ensured high visibility, it eventually hit structural limits.

Attempts to describe APPAU's activity using the Business Model Canvas helped structure services and interaction channels but failed to explain the **collective value** created or the organization's systemic role. Members remained mere "consumers" of services, and the responsibility for growth remained concentrated within the management directorate.

It became clear that the problem wasn't a lack of projects, but the **underlying logic**. APPAU began to rethink itself not as a service provider, but as an **Institutional Orchestrator** creating conditions for joint action between business, experts, clusters, and partners, *Fig. 2.*

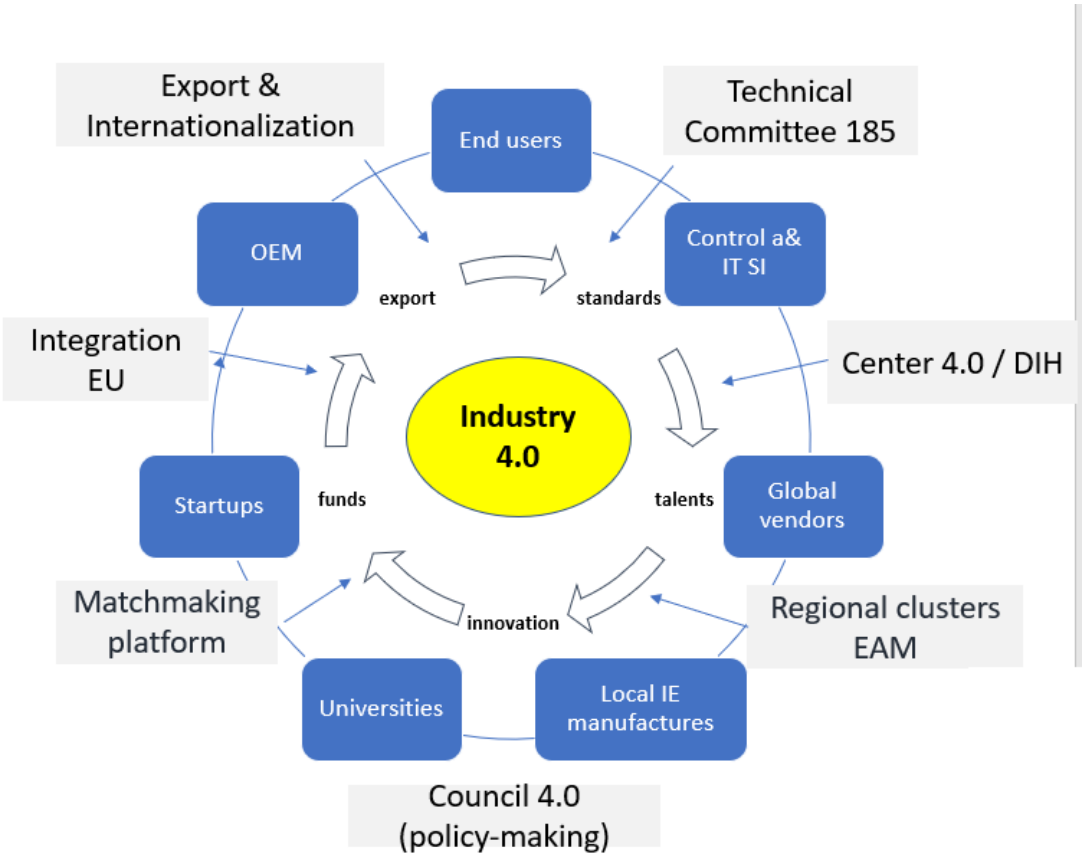


Fig. 3: APPAU - as a platform, orchestrator and builder of shared assets in the Industry 4.0 ecosystem

This shift involved:

- A transition from offering services to building **interaction mechanisms**.
- A focus on **shared assets** and a portfolio of strategic initiatives.
- A change in the members' role: from **value recipients** to **value co-creators**.

The APPAU case proves that without a clear role definition, even a strong organization risks becoming stuck in a service loop. Moving to an orchestrator role is **a fundamental shift in the logic of collective value creation**.

Typical Errors in Cluster Development

To avoid common pitfalls (often caused by applying the Osterwalder BMC paradigm to clusters), avoid these three mistakes:

1. **Misdefining the Cluster's Role:** Many organizations – under pressure or by choice – become project bureaus, service agencies, or executive contractors. While operationally efficient, this is not orchestration. Long-term, this devalues the very idea of economic clustering.

2. **Confusing Service Value with Collective Value:** Value is often mistaken for a mere "menu of services". This treats the cluster as a vendor, leading to member passivity and a concentration of all responsibility in the directorate.

3. **Ambiguity Regarding Target Audience and Purpose:** Without a clear understanding of *who* the value is for (e.g., SMEs in key VC links) and *what* systemic change is intended, prioritization fails. This often leads to "grant-hunting" – formulating value only to satisfy a donor's specific project rather than the cluster's mission, its role in the ecosystem, and an agreed vision of the changes that the cluster seeks to ensure together with key stakeholders.

☞**The Marker of Maturity: A mature cluster can clearly articulate its role in the ecosystem without resorting to a list of services, projects, or activities.**

Next, we will begin to reveal the details of each of the remaining blocks, Fig. 4

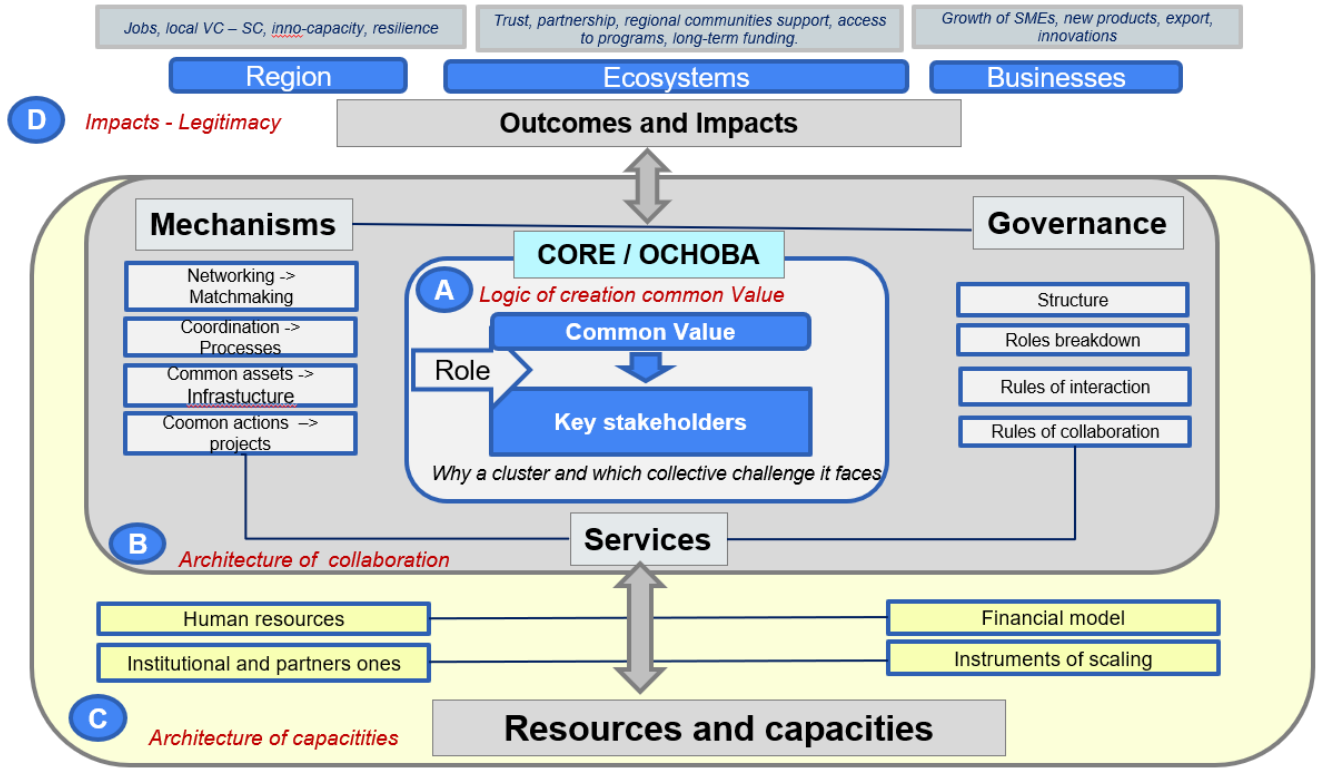


Fig. 4 Complete Model of Cluster Organization.

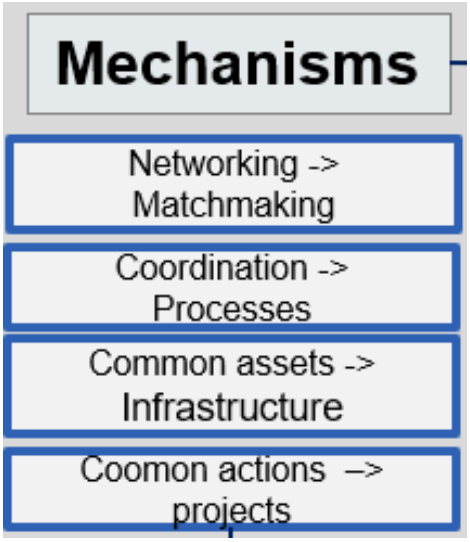
BLOCK 2. INTERACTION ARCHITECTURE

How collective value is created

his block is key to understanding **HOW** to create collective value. The three key elements here are **Mechanisms, Governance, and Services**. This section reveals their essence and interconnectedness.

Together, these three categories create the operating system of the cluster. Let's examine each of them in detail.

1. Mechanisms for Creating Collective Value



Mechanisms represent the logic of collective action, and they are *not yet services*. Mechanisms reduce the transaction costs of interaction – that is their core essence. They describe *how* participants interact, not *what* products the cluster "provides". Mechanisms always precede services: a service is a formalized and repeatable mechanism, but a mechanism can exist without a service. In any cluster, there is a limited number of basic interaction mechanisms, typically focusing on four main ones:

- **Regular networking** is a key element at the inception of cluster activities, uniting participants and building trust. It is crucial that it gradually transitions into **matchmaking**. High-quality matchmaking is the foundation for launching effective cooperation among participants, as it involves connecting supply with demand and exploring potential partnerships.

  UCA Example: For the last three years, the executive directorate has consistently emphasized the "networking -> matchmaking" pipeline, stressing that networking alone is insufficient and that matchmaking techniques must be developed. In 2025, we held special workshops on this topic and published several articles. The essence remains: without matchmaking, clusters either do not create collective value, or it remains very low.

- **Coordination of actions** among various ecosystem participants, transitioning into systemic processes, is an equally important element. It is easy to generate joint initiatives, but the immediate question is always, "Who will coordinate this?" A shortage of managers capable of acting as coordinators within a Working Group or a new initiative is felt at both the UCA level and within individual clusters. In summary, high-quality coordination that evolves into distinct cluster business processes is, in itself, a mechanism of cooperation.

- **Shared assets** that grow into community support infrastructure. Cluster websites, social media pages and groups, web platforms (such as marketplaces for participant offerings), joint

committees, and working groups – these are all shared assets that over time evolve into a robust support infrastructure for cluster members.

- **Joint actions** that develop into concrete projects. If such activities become regular, this serves as a highly effective mechanism for creating shared value.

👉 **Mechanisms are about the interaction of cluster participants in creating shared value, but they are not yet services.** In other words:

If these mechanisms are absent or weak, one should not expect the creation of any significant collective value.

However, a common problem for young clusters is that they often do not know *how* to implement these mechanisms. They lack the specific, **concrete "mechanics"** (the methods, formats, or operational ways) **for execution**. The following table, based on an analysis of the best practices of Ukrainian clusters, provides answers to this problem.

Interaction Mechanism	Goal (What it solves)	Typical Mechanics (How it is implemented)	Examples of Practices	Cluster Stage
Networking → Matchmaking	Building trust, first B2B connections	- Enterprise visits - Facilitated B2B meetings - Closed matchmaking sessions - Industry events	TEU, UIC, UAFM	Initiative → Young
Coordination → Processes	Aligning actions, reducing chaos	- Working groups - Regular coordination meetings - Creation of sectoral agendas - Alliances / consortia	APPAU, Kharkiv IT, Podillia Fashion Cluster	Young → Mature → Systemic
Shared Assets → Infrastructure	Creating a foundation for joint activities	- Digital platforms - Educational systems - Shared brands - Industrial hubs	Lviv Medical, Kharkiv IT	Young → Mature

Joint Actions → Projects	Generating economic value	- Value Chains (VCs) - Shared products - Collective brand - Joint exhibition stands - Export consulting - Pilot projects - Roadmaps - EDIH Management - Consortia	Vinnytsia, U-Food, APPAU, Podillia Fashion Cluster, UAFM, Kharkiv IT	Young → Mature

Key takeaways from Ukrainian cluster best practices for this section:

- A single mechanism can be built upon several mechanics (implementation methods).
- Complex mechanics usually depend on the level of maturity – meaning, young clusters should not immediately tackle massive projects like creating industry roadmaps or leading large consortia.
- The strongest mechanisms are those that generate cash flow.

2. Governance

Collaboration mechanisms cannot scale and reproduce on their own. As soon as interaction between participants becomes regular and begins to create shared value, questions arise regarding roles, responsibilities, priorities, and access to resources. It is precisely at this stage that mechanisms require **governance** – a set of rules, roles, and procedures that transform one-off or personalized interactions into sustainable collective practices.

Thus, cluster governance is not a separate "administrative layer", but emerges as a response to the need to organize and protect the mechanisms of collective value creation.

A cluster, like most public unions, differs from traditional business organizations in its decision-making structure. There are no large teams subordinate to a directorate that resolves all strategic and operational issues. Instead, there is a traditional 3-tier structure: the General Meeting of the association (the supreme body), the Board (the strategic body), and the Executive Directorate (operational management). This structure guarantees inclusivity and equality in representing the interests of all participant categories. However, launching such a structure is not always obvious to young clusters. It requires constant alignment of the "rules of the game", decision-making processes, and the balance of interests – all of which keep trust at a high level. And trust is the primary asset, the true "currency" of the participants in any business union. In practical terms, we distinguish 4 elements of governance:

- **Management structure:** At a minimum, as noted above, all 3 tiers must be effective – each with its own specific roles and functions.
- **Clear division of roles between the Board and the Executive Directorate:** Putting this into practice is a major bottleneck in cluster growth. Many UCA clusters treat the Board merely as a formality, failing to assign its members specific roles and functions. Consequently, the entire workload typically falls on a single executive director, leaving many tasks and processes – including those of "political" weight (like advocacy or international cooperation) – without proper attention and development.
- **Shared rules in the community:** These are equally vital elements of governance. Conflict resolution, decision-making processes in specific situations, ethical standards, admission rules, membership fees and categories, partnership policies, project coordination, and adherence to transparency and reporting must all be agreed upon with cluster members. The UCA and our clusters support the voluntary standard for Ukrainian business associations, which outlines the most critical, basic rules.
- **Representation of all key stakeholder groups:** This is another crucial element of effective cluster governance. Clusters take on a unifying role for highly diverse categories: manufacturers, academia, communities, etc. Often, these represent different interest groups. Therefore, each must have a voice within the governing bodies.

  Examples from the UCA: The experience of advanced UCA clusters clearly shows that proper governance is the key to successful growth. Kharkiv IT Cluster, UAFM, and to a lesser extent APPAU, have all gone through the process of establishing an effective Board and standardizing relevant internal policies and procedures. Notably, Kharkiv IT Cluster and UAFM are the largest entities among UCA clusters – and governance is directly related to this success.

☞ **Governance stems from mechanisms; it does not exist in isolation.**

When collaboration mechanisms are regulated through governance and become predictable, the opportunity arises to "institutionalize" them within the organization. It is at this stage that **services** emerge – as structured, managed, and repeatable forms of interaction with defined access rules, expected outcomes, and allocated responsibilities.

3. Services as Derivatives of Joint Action Mechanisms

In the cluster model, services are not an independent value and do not define the operational logic. They perform a supporting function – making mechanisms of joint action accessible, understandable, and scalable for a broader audience of participants.

Services emerge where:

- an interaction mechanism already exists;
- roles and responsibilities are defined;
- basic rules of the game are established through governance.

Under this logic, services can change their format or form, be outsourced to partners or external contractors, and be temporarily suspended without destroying the operating model.

Typical cluster services (events, training, networking, consulting, analytics) only make sense when they **reinforce specific mechanisms** – for instance, developing cooperation within value chains, driving joint innovation, entering new markets, or forming unified industry positions.

When services are launched merely as a response to a demand to "do something" or as a way to demonstrate activity, they begin to substitute the model itself. In such cases, the cluster gradually loses focus, and operational complexity grows much faster than the capacity to manage it.

Services are meaningful only when they are a consequence of mature mechanisms and governance, not an attempt to replace them.

Case Study APPAU: How services begin to replace the operating model

At a certain stage of APPAU's development, its operational logic was built around a broad array of services: events, international missions, expert activities, training programs, and projects. This model provided high visibility and engagement but gradually exposed a critical vulnerability: **services began to act as the operating model rather than its derivatives.**

In this configuration:

- each new area of activity required a separate project and funding;
- governance – especially involving the Board – either did not work at all or operated in manual mode;
- mechanisms of joint action were not clearly separated from specific activities.

This led to a fragmentation of the operational logic: successful services and projects were not converted into repeatable mechanisms, and the completion of individual initiatives effectively "reset" the accumulated practices to zero.

Only in 2025 did APPAU begin shifting its focus from services to **interaction mechanisms**, and by year-end, toward institutionalizing them through governance. This means:

- a clearer distinction between mechanisms, processes, and services;
- anchoring roles and responsibilities outside the scope of individual projects;
- the ability to alter or discontinue services without losing operational integrity.

The APPAU case demonstrates that a mature cluster operating model is formed not by expanding the service portfolio, but through the **conscious design of mechanisms, relevant mechanics, and governance** that make collective action repeatable and predictable.

If services become the default answer to every operational challenge, they replace the model instead of supporting it. In such a situation, any increase in activity only amplifies the system's fragility.

Most clusters go through a similar phase where service growth outpaces the development of the operating model.

Typical Errors in Cluster Development

1. Services instead of mechanisms

A common mistake is building an operating model around a menu of services – events, consulting, networking, training – without a clear understanding of **what joint action mechanism they support**. In this logic, services take on a life of their own and gradually replace the model. The result is a situation where the cessation of services automatically means the cessation of joint action, and the cluster increasingly resembles a standard service or project agency.

2. Governance as a formality, rather than a condition for repeatability

Another common error is viewing governance as a formal set of management bodies, procedures, or documents. In this case, governance fails to fulfill its core function: **to ensure the predictability, trust, and repeatability of collective action.** Without clear governance, mechanisms operate only manually, and the operating model becomes completely dependent on specific individuals or informal agreements.

3. Project logic instead of an operating model

Often, the operating model is essentially reduced to managing individual projects. Mechanisms, roles, and processes are activated only "for the project" and vanish once it ends. As a result, the cluster is constantly starting from scratch without accumulating operational capacity, and the model itself becomes reactive and fragmented.

4. Centralization of operational responsibility

An operating model where most decisions and actions are concentrated within the directorate or a single team might work at the start, but it quickly becomes a bottleneck. Without delegated roles and clear operational contours, the cluster cannot scale and loses agility. In such a model, the participation of members and partners is reduced to the consumption of services, rather than co-creation and execution of mechanisms.

📌 **Additionally – read the UCA case on "false services".**

👉**The Marker of Maturity: A mature cluster is able to explain which mechanisms and mechanics of joint action it supports, exactly how they function, and why services are merely their derivatives, rather than the core of the model.**

BLOCK 3. CAPABILITY ARCHITECTURE. VALUE CAPTURE & ENABLING

How a cluster sustains and scales collective value

The first two blocks of the model answer the questions of "why" and "how" a cluster creates collective value. Block 3 answers an equally critical question:

What enables this logic to function stably over time and not collapse when people, projects, or funding change?

The capability architecture describes not resources as such, but the system's ability to act predictably and resiliently. This is precisely where the cluster model radically differs from the business logic of a single organization.

One of the most common mistakes is reducing cluster capability to the number of people in the directorate, the size of the budget, and the number of grants or projects. In reality, capability is

the ability to maintain key interaction mechanisms regardless of external fluctuations

A cluster with a mature capability architecture can reject an inappropriate project, survive a change in leadership, or even slow down without losing its integrity.

Capabilities are the foundation that allows mechanisms, governance, and services to function as designed. The capability architecture is presented in Fig. 5.

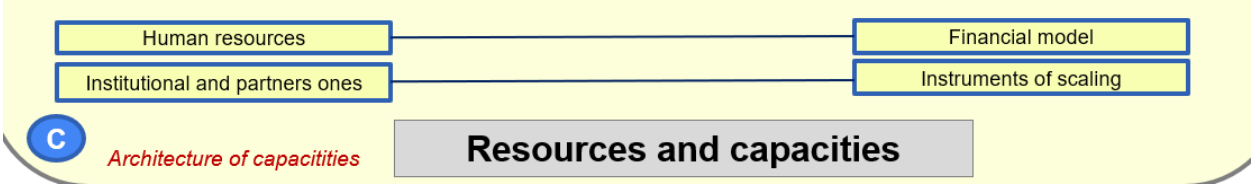


Fig. 5: The role and place of capabilities in the cluster model.

Within this Playbook, we highlight 4 key components:

- Human capabilities;
- Institutional and partnership capabilities;
- Financial model;
- Scaling tools.

1. Human Capabilities

(Roles instead of "people on staff")

The human capability of a cluster is determined not by the number of people in the directorate, but by the presence of clearly formulated roles, distributed responsibilities, and the ability to perform key cluster functions.

In a mature cluster, it is important not only "who is on the team", but also **which functional capabilities are covered** – in particular:

- Facilitation of interaction between participants;
- Project management (launching and executing initiatives);
- Matchmaking (connecting supply and demand).

It is these functions that ensure the practical implementation of cluster mechanisms. The core principle is the transition from a "the team does everything" model to a model of **distributed roles and co-ownership:**

- Each mechanism has a designated responsible person (owner);
- Cluster participants are engaged as co-creators, not just consumers;
- Market experts are integrated into the cluster's operational activities.

A cluster with developed human capabilities does not critically depend on specific individuals; instead, it is able to delegate and scale activities, transforming participants and experts into carriers of functions and mechanisms. Without this, any increase in activity only multiplies the workload on the directorate and increases the fragility of the system.

👉 **Important:** Human resources themselves do not create value –

value is created by the team's ability to perform the key functions necessary to implement collaboration mechanisms

2. Institutional and Partnership Capabilities

(The ability to act beyond one's own boundaries)

Institutional and partnership capabilities determine how well a cluster is integrated into the broader ecosystem and whether it can execute collaboration mechanisms beyond its own internal resources. It is not about the number of partners, but about the **quality, stability, and functionality of connections.**

👉 **The key question:** It is not "who do we collaborate with", but **"how do we coordinate joint actions".**

In this context, the following functional capabilities are crucial:

- Coordination of multiple stakeholders (business, education, government, donors);
- Building functional operational formats (working groups, consortia, alliances);
- Strategizing (aligning priorities, roadmaps, shared goals).

These functions are what transform partnerships from declarative agreements into actionable ones. A mature partnership capability allows the cluster to:

- Integrate into existing infrastructures rather than duplicating them;
- Reinforce its own mechanisms through partner resources and expertise;
- Launch complex cross-sectoral initiatives that are impossible for single organizations;
- Reduce dependence on internal resources through effective ecosystem interaction.

Under this logic, partnerships are not an external add-on, but **a part of the cluster's operating model** – a tool for implementing coordination, scaling, and systemic change mechanisms.

👉 **Important:** The mere presence of partners does not create value in itself; it is created by

the cluster's ability to organize joint action and coordinated execution

3. Financial Capability

(Predictability and freedom of choice)

The financial capability of a cluster lies not in maximizing revenue, but in its ability to **sustain and scale key collaboration mechanisms over time.** It provides predictability, autonomy, and the ability to turn down unsuitable projects or funding sources.

👉 **The key question:** It is not "how much do we earn", but **"are our mechanisms funded and do they create economic value?"**

In this context, crucial functional capabilities include designing the economics of mechanisms (who pays, for what, and why), monetizing services and shared assets, building co-financing models among participants, and attracting external resources as a catalyst rather than the foundation of operations.

A mature financial capability:

- Does not depend on a single donor or project;
- Supports the operational logic rather than substituting it;
- Enables strategic rather than reactive decision-making;
- Is based on the internal economics of mechanisms (membership fees, services, joint projects).

👉 **Important principle:**

If a mechanism does not create economic value for participants, it will not be sustainable without external funding.

Finance in a cluster is not an indicator of success per se, but **a tool to ensure the sustainability and development of the operating model.**

4. Scaling Tools

(Growth without increasing fragility)

Scaling tools determine whether a cluster can expand its impact without a proportional increase in complexity, team workload, and managerial fragility. It is not about the number of projects, but about the ability to **replicate and scale functioning collaboration mechanisms.**

Key scaling tools include:

- A portfolio of mechanisms and projects;
- Role models of participation (distribution of functions among members);
- Standardization of processes and formats;
- Digital platforms and tools;
- Ecosystem partnerships;
- Institutionalized services.

👉 **The key question:** It is not "how to do more", but **"how to make it work without constant manual management".**

In this context, the critical functional capabilities are:

- Standardizing successful mechanics (converting them into repeatable formats);
- Delegating roles and functions to participants (decentralization);
- Utilizing digital solutions to reduce transaction costs;
- Scaling through partnerships, not just through the core team.

The core principle of scaling is:

if a tool does not reduce dependence on manual management, it does not scale the model – it merely adds activity.

Mature scaling tools allow a cluster to:

- Replicate mechanisms in new contexts (regions, sectors, participant groups);
- Increase the number of participants without losing manageability;
- Expand the portfolio of activities without a proportional increase in team size;
- Transition from one-off "projects" to systemic services and platforms.

👉 **Important:** Scaling happens not by increasing the number of initiatives, but by **replicating functioning mechanics and institutionalizing them.**

5. Organizational Competencies and Expertise

It is logical to map the required cluster competencies depending on its maturity level. The following table provides such an overview:

Competency Group	Initiative / Formation	Young Cluster	Mature Cluster	Systemic Cluster
Facilitation of interaction	Organizing meetings	Building basic trust	Moderating working groups	Running regular formats, managing complex groups, conflict facilitation
Ecosystem orchestration	-	-	Moderating multi-stakeholder processes	
Project management	Simple activity planning	Launching and managing projects	Project portfolio management	Managing a portfolio of mechanisms and programs
Matchmaking (B2B)	Networking, introductions	Targeted connection of participants	Structured matchmaking (deals)	Institutionalized mechanisms (Value Chains, platforms)
Coordination and partnerships	Basic partnerships	Working groups, local alliances	Cross-sectoral coordination	Ecosystem management, consortia
Analytics and diagnostics	Intuitive understanding of needs	Basic surveys	Systemic diagnostics (maturity, market)	Data-driven industry management

Legal and organizational framework	Informal agreements	Simple contracts	NDAs, partnership agreements	Complex models (licenses, IP, consortia)
Marketing and market access	Cluster communication	Promoting participants	Shared brand, exhibitions	Systemic export, international positioning
Financial model	Grants, basic membership fees	Source diversification	Service monetization	Self-sustaining economics of mechanics
Digital tools	Basic communications	CRM, simple platforms	Specialized solutions	Digital ecosystems (traceability, data)
Strategizing	Vision / idea	Basic development plan	Detailed roadmaps	Sectoral strategies / policy influence

Taking into account the collective experience of Ukrainian clusters, the main conclusions are as follows:

1. **Different stages of maturity require different competencies:** For example, a common mistake is attempting in-depth "strategizing" at the initiative stage. You must start with trust – then establish interaction among participants – and only then move toward economics (results). Cluster experience shows that true, deep engagement of participants in strategy processes happens at later stages.
2. **Competencies accumulate (they are not replaced):** This means facilitation is always needed; it simply becomes more complex as the cluster evolves.
3. **The most critical difference between a "young" and a "mature" cluster** is where real economics, legal frameworks, and structured agreements emerge.
4. **The systemic level means changing the role of the cluster:** It ceases to be just one of many intermediary service organizations or SME associations and becomes a true **infrastructural market operator.**

The table above can also serve as a checklist; every cluster can verify which competencies it currently lacks.

Examples of UCA clusters: Within the cluster community, we have numerous examples of how clusters build capacities:

- **Human capabilities:** The more mature a cluster is, the larger its team – but also, more attention is paid to the proper assignment of roles and functions within the team. Typically, mature clusters (UAFM, Kharkiv IT, APPAU, ASTAR) employ specialists with narrow expertise while concurrently developing collective competencies in agile project management, teamwork, and digital skills.
- **Institutional and partnership capabilities:** A great example among young clusters is TEU. They are already establishing a clear partnership policy, engaging ministries, leading universities, and thought leaders in their interactions.
- **Financial model:** UAFM is one of the best examples of a cluster consciously managing its financial model to achieve an optimal balance between membership fees, grants, and service sales, ensuring sustainability and alignment with developmental goals.
- **Scaling tools:** APPAU extensively utilizes various scaling tools (see the example below).

Case Study APPAU: Scaling Tools of Influence

The story below illustrates that even organizations with high levels of expertise and international integration face scalability limits if their capability architecture is not supplemented with clear roles and delegated responsibilities.

APPAU has employed a range of scaling tools for many years:

- **Scaling through a project portfolio and funding:** APPAU regularly updates its 5-year project portfolio. The latest portfolio, extending to 2030, is already integrated into the UCA Clusters4X programs, where APPAU is ready to take responsibility for *Clusters4Industry*.
- **Scaling through standardization:** In 2017, APPAU established its own Technical Committee 185, "Industrial Automation", which harmonized 5 IEC/ISO standards for the Ukrainian market in 2019-20.
- **Scaling through ecosystem partnerships:** Today, the Industry 4.0-5.0 ecosystem features several powerful partner networks – DIH/EDIH, EEN, partner clusters, government, and donor structures. The foreign partner network operates exceptionally well; thanks to it, APPAU secured vital contributions and projects (from the USA and France) that partially funded the development of the entire UCA.
- **Scaling through influence:** The draft national strategy for Industry 4.0 and subsequent initiatives, including efforts to elevate it to the state policy level, are prime examples of policy engagement.

In other words, APPAU utilizes most of the available scaling tools from the options list. However, it was only in 2026 that APPAU integrated the mechanism of **Scaling through roles and delegation.** It has become evident that when all tasks fall on the executive directorate, Working Group heads (CoP 5.0) lack proper mandates and resources, and most stakeholders remain mere observers or beneficiaries, many developed interaction mechanisms and influence tools either fail to scale or scale incorrectly. The new 2026 strategy, which focuses on transitioning to open ecosystems and defining roles (co-ownership) across various domains, is fundamentally changing this situation.

Typical Errors in Cluster Development

1. Equating capability with funding

The most common mistake is assuming that having grants or projects automatically equals operational capability. Under this logic, the cluster appears active as long as funding lasts. However, once the project ends, it turns out that mechanisms, roles, and processes were never institutionalized. This results in a constant "restart" of activities and a dependence on the next grant for survival rather than development.

2. Dependency on individuals instead of roles

Often, key cluster functions are effectively "tied" to one or two managers or leaders. As long as these individuals are available and motivated, the system works. Once they leave or burn out, joint action stops. In such a model, it seems the problem is a lack of people, when in reality, it is a lack of role **architecture and mechanism ownership**.

3. A financial model without predictability

Even with multiple revenue streams, clusters often lack financial capability in the true sense – that is, the ability to plan activities and make strategic decisions. Income appears in a fragmented, "per-activity" manner without a clear link to sustaining key mechanisms. Consequently, the cluster constantly reacts to available opportunities rather than sequentially building its own model.

4. Scaling through activity rather than mechanisms

Increasing the number of participants, events, or services is frequently mistaken for scaling. However, without standardization, roles, and delegation, such activity simply heightens operational complexity and team workload. Eventually, growth ceases to be an advantage and becomes a source of fragility.

5. Partnerships as "contacts" rather than as part of the capability architecture

Clusters may sign numerous memoranda and gather many partners but still lack genuine partnership capability. If partnerships are not embedded into the operational logic to reinforce joint action mechanisms, they remain purely declarative. In this scenario, the cluster continues to operate within its limited internal resources, despite the outward appearance of an extensive network.

The capability architecture becomes visible not when the cluster is buzzing with activity, but when it proves capable of sustaining operations after projects conclude and key people move on.

☞**The Marker of Maturity: A mature cluster is able to sustain joint action even when people change, projects end, or specific funding sources disappear.**

If a cluster's viability directly depends on a single project, donor, or manager, its capability architecture has not yet been formed.

BLOCK 4. RESULTS AND IMPACT

How Collective Value Becomes Visible and Legitimate

The first three blocks describe **why** a cluster exists (value and role), **how** it operates (operating model), and **what enables** it to maintain its capacity to act (capability architecture). Block 4 answers the final, critical question:

What genuinely changes due to the cluster's existence – and why does it matter to businesses, the region, and the broader ecosystem?

Results vs. Impact: The Fundamental Difference

In cluster operations, *results* (outputs) are often confused with *impact*. Results describe **what was done:** projects implemented, events hosted, funds raised, participants trained. They are necessary, but on their own, they do not explain **whether any real changes occurred outside the organization.**

Impact belongs to an entirely different level – it defines **what has changed in the system** as a result of the cluster's activities and why these changes endure over time. This refers to transformations in value chains, market behavior, participant capabilities, rules of interaction, or institutional practices.

Clusters can be highly active yet produce limited impact. This occurs when results do not convert into sustainable outcomes, and collective action fails to take root at the ecosystem level. This is why, in the cluster model, impact is viewed not as a byproduct of activity, but as the **core criterion of the cluster's legitimacy.**

What is Impact in Cluster Logic?

In the cluster model, impact is a **sustainable change** that would not have occurred without collective action, persists long after individual initiatives end, and can be replicated or scaled by other actors. This can include:

- New rules or practices of interaction;
- Shifts in the behavior of businesses or institutions;
- The emergence of new market or collaborative opportunities;
- The institutionalization of roles and mechanisms that continue to function independently.

Impact is not an event or a standalone project; it is a **shift in the "normal state" of the system.**

Levels of Cluster Impact

The impact of a cluster is not one-dimensional and cannot be reduced to a single metric. It manifests across various system levels and only becomes meaningful when **performance results transform**

into sustainable changes that outlast individual projects. In the cluster model, it is appropriate to outline several interconnected levels of impact.

1. Impact on participants and collective behavior

The first level of impact is seen in changes to the behavior, decision-making, and capabilities of cluster members. It is not about the sheer volume of members or events, but whether participants begin to:

- Act collaboratively in areas where they previously operated in silos;
- Invest time and resources into collective initiatives;
- Assume roles and responsibilities that extend beyond their own businesses. *If participants' behavior remains unchanged after joining the cluster, the impact remains superficial.*

2. Impact on value chains and markets

At this tier, impact extends beyond individual companies and manifests in a shift in **how value is created and distributed.** This may include:

- The emergence of new value chains or the transformation of existing ones;
- Expansion into new markets or segments;
- The joint development of products, solutions, or standards. *This type of impact takes longer to materialize, but it is precisely what distinguishes mature clusters from simple networking groups.*

3. Institutional and ecosystem impact

Institutional impact occurs when practices developed within the cluster **become part of the broader rules of the game.** This involves:

- New formats of interaction between business, academia, government, and the expert community;
- Shifts in policies, programs, or support instruments;
- The establishment of trust and predictability within the broader ecosystem. *At this level, the cluster ceases to be just an organization and begins to shape the system itself.*

4. Long-term transformational impact

The deepest level of impact is associated with changes that:

- Persist long after individual projects conclude;
- Are replicated by other actors without the cluster's direct involvement;
- Serve as a foundation for further systemic transformations. *This is where the cluster demonstrates its ability to trigger processes that take on a "life of their own" and dictate the future trajectory of industries or regions.*

Not all clusters are required to operate at all levels of impact simultaneously. The problem arises when activities consistently fail to transition to the next level.

This caveat is vital to avoid both inflated expectations and organizational self-deception.

Projects as Carriers of Impact: The ED-APM Management Logic

In the cluster model, projects hold a distinct role. They are neither the primary product of the cluster nor a standalone metric of its success. Projects serve as **instruments for driving change**, through which the cluster translates collective value into tangible results and long-term impact.

The key departure from traditional project management logic is that, within a cluster, projects are viewed **not as completed events, but as carriers of outcomes** that must firmly take root beyond the project's boundaries.

In this context, the **Ecosystem-Driven Agile Project Management (ED-APM)** approach enables the cluster to:

- Focus not merely on deliverables, but on shifts in behavior, practices, and capabilities;
- Establish co-ownership of outcomes as early as the design phase;
- Lay the groundwork for scaling results across the wider ecosystem.

Under cluster logic, a project is deemed successful not when it is formally closed, but when its outcomes:

- Are integrated into established mechanisms of collective action;
- Are adopted and replicated by other actors;
- No longer require constant manual management from the cluster team.

Thus, ED-APM does not replace the cluster model; rather, it acts as a **management bridge** connecting operational activities, capability architecture, and long-term impact.

👉 Projects are only meaningful when they alter how the system operates, rather than merely generating new activities.

Case Study APPAU: GDT Textile. How a Project Transforms into Ecosystem Impact

The GDT Textile Case illustrates how impact logic is forged not by the sheer scale or resources of a single organization, but by a **properly structured ecosystem loop of change.**

The objective was to implement digital transformation methodologies within the light industry. At first glance, the project seemed to have low prospects for sustainability – it was highly complex, burdened with an extensive scope of work, and constrained by a short timeline (only 4 months). However, the defining managerial decision was treating the project from day one not as a one-off initiative, but as a **catalyst for change in the broader system.**

Under the ED-APM logic, the focus shifted:

- From formal executors → to an **architecture of partners** holding influence and displaying the strongest interest in the topic within the ecosystem;
- From deliverables → to **outcomes** and their early monitoring;
- From fulfilling contract terms → to **what must endure** after the project's closure;
- From activity management → to distributed **ownership** of outcomes among various stakeholders.

As a result, the project formed an **ecosystem loop** that gave rise to new roles and interactions among businesses, experts, and institutions. It laid the groundwork for scaling solutions beyond the initial project, ensuring outcomes were embedded into the practices of other actors rather than remaining "results on paper".

The ultimate marker of impact was that **the changes continued to be replicated in the year following the project's conclusion without the direct involvement of the project team.** It was at this juncture that the project transcended traditional definitions and became a **carrier of systemic change.**

The GDT Textile case demonstrates that impact:

- Is not an automatic byproduct of project execution;
- Is not guaranteed by funding or the innovativeness of the solution;
- Emerges only when outcomes have owners, are embedded into the ecosystem, and are primed for scaling during the implementation phase itself.

The leaders of the Ukrainian Cluster Alliance (UCA) – APPAU and the Podillya Fashion Cluster – played a pivotal role in this case. Thanks to their efforts, several other clusters and two EDIHs (Kyiv and Khmelnytskyi) were drawn into close collaboration. However, the fact that after four years of UCA's existence, this remains one of the very few examples of cluster collaboration showcasing clear ecosystem impact is a warning signal. With proper cluster development, Ukraine should have far more cases like this, driving significant impact on ecosystems and regions.

👉 Impact does not depend on organizational structure. It depends on whether change is managed as a vital part of the ecosystem.

Typical Mistakes in Generating Impact

1. Confusing impact with activity or results

The most frequent error is measuring impact by the number of completed projects, events hosted, or funds raised. This logic works well for reporting but fails to answer what genuinely changed outside the cluster. Consequently, a cluster might appear incredibly active without leaving any enduring mark on the ecosystem.

2. Treating impact as an "after-project" thought rather than a core management function

Often, impact assessment begins only after projects wrap up – treated as an afterthought. Under this logic, outcomes lack owners, and the scaling of results is left entirely to chance. When impact is not hardwired into project design, it rarely extends beyond isolated initiatives.

3. Fixating on a single level of impact

Some clusters concentrate exclusively on one tier – such as participant benefits or institutional networking – while ignoring the rest. This becomes problematic when **activity consistently fails to advance to deeper levels of impact.** The cluster gets "stuck" in its comfort zone, blind to its own limitations.

4. Creating impact without ecosystem anchoring

Even genuine changes can evaporate quickly if they aren't anchored in mechanisms, roles, or rules of interaction. When impact relies solely on the ongoing involvement of the cluster team, it remains fragile and fleeting. This is glaringly obvious when established practices die out the moment funding dries up or key personnel leave.

5. Expecting impact without a willingness to evolve roles

Achieving systemic impact is impossible without a shift in roles – both for the cluster itself and its members. Clusters frequently demand systemic change while refusing to step out of their comfortable roles as service providers. Attempting to drive impact **without altering its own managerial posture** makes a cluster's expectations entirely unrealistic.

👉**The Marker of Maturity: A mature cluster can clearly articulate what systemic changes occurred as a direct result of its operations and explain why these changes continue to function without the constant intervention of the cluster team.**

In such a cluster:

- Results successfully convert into sustainable outcomes;
- Impact is structurally anchored in roles, mechanisms, and rules of interaction;
- Projects and programs serve as carriers of change, not its sole source.

AFTERWORD. On clusters as institutions of collective action

This Playbook was not created as an answer to an academic question, nor as an attempt to standardize the vast diversity of cluster practices and models. Its purpose is to **codify a fundamental shift in management logic** – a shift that is already unfolding within Ukrainian clusters but is still in the phase of maturation and realization.

We are increasingly observing that clusters do not fit into conventional frameworks: they are not mere replicas of business associations, they are not businesses in the classical sense, they cannot be reduced to project management agencies, and they cannot be evaluated solely through a list of services or activity-based KPIs.

Within the **Ukrainian Cluster Alliance (UCA)** community, we see the emergence of a different type of institution.

The Cluster as an Orchestrator

The first realized position is that **a cluster is not just an organization, but a vital role within a market ecosystem.** Early in its journey, UCA clearly formulated this in the thesis: *"The cluster as an orchestrator of the industrial ecosystem".* However, this Playbook extends that definition further:

> ***"A cluster is an orchestrator of the industrial ecosystem through the organization of collective interaction".***

This principle is the "red thread" running through the entire document. It fills the role with practical meaning and brings it closer to reality – after all, orchestration is impossible without the active interaction of the system's participants.

A New Logic of Value

The true value of a cluster lies not in what it does *instead* of others, but in how it **enables interactions that would not have occurred on their own.** This perspective makes the following propositions logical and consistent:

- **Services** are derivatives of mechanisms;
- **Projects** are carriers of systemic change, not just a means of budget replenishment;
- **Governance** is a prerequisite for trust and a framework for validating services, not a bureaucratic formality.

Projects as Instruments of Market Change

In current conditions, projects remain the primary instrument of cluster action. However, the difference between a mature and an immature cluster lies in the **ability to see beyond the scope of a single project.** The **Ecosystem-Driven Agile Project Management (ED-APM)** approach complements this model by offering a practical management lens where:

- The focus shifts from **deliverables to outcomes**;
- Project participants are positioned as **co-owners of change**, not just beneficiaries.

Thus, projects cease to be "temporary events" and become **mechanisms of ecosystem transformation.**

The Fundamental Shift

This Playbook does not offer universal solutions or promise instant results. Instead, it proposes a radical shift in thinking:

- From **Service Logic** → to **Mechanism Logic**;
- From **Organizational Management** → to **Ecosystem Orchestration**;
- From **Activity** → to **Capability**;
- From **Projects** → to **Impact**.

This shift is difficult. It requires time, honesty, and a willingness to rethink familiar roles. But without it, clusters risk remaining busy without ever becoming influential.

Clusters do not exist to "do something to their members" or to satisfy the interests of a narrow group of stakeholders. They exist to make collective action possible, sustainable, and replicable.

This is their true value and their ultimate responsibility. It is by this criterion that they will, in the end, be judged.

Annex 1. Cluster Authenticity Checklist

Compliance with Cluster Organization Model Criteria

Level 1 – BASIC IDENTIFICATION An organization is **NOT** a cluster if it does not meet **ALL** of the following criteria:

1. **Presence of a critical mass of business (cluster core):** At least 10–15 companies where business interests dominate.
2. **Clear sectoral focus:** A specific sector, sub-sector, or value chain is visible (not "everything for everyone").
3. **Primary interaction between participants:** Regular contacts or activities exist; participants know each other and have B2B relationships.
4. **Existence of a coordinating structure:** A formalized management structure that coordinates and involves cluster participants.
5. **Clearly articulated collective value:** Defined not as a list of services, but as a solution to problems or opportunities that businesses cannot address alone.
6. **Defined role as an orchestrator:** Acts as a coordinator of collective action in the ecosystem (the organization is NOT a service agency or project office).
7. **Reproducible interaction mechanisms:** Formalized and regular processes (networking, matchmaking, joint projects) with proven repetition.

Level 2 – FOR CLUSTERS WITH HIGHER MATURITY LEVELS

8. **Evolution into advanced services:** Interaction mechanisms transition into services that enhance, rather than replace, the underlying cooperation.
9. **Independent interaction:** Participants interact and form partnerships directly, thanks to established trust, regardless of the cluster directorate's involvement.
10. **Formalized governance structure:** At minimum, a general meeting (at least once a year) and a Board that performs a strategic function.
11. **Active Board and Executive Team:** The Board is genuinely involved in developing partnerships, while the executive team manages operational strategy.
12. **Recorded "Rules of the Game":** Provisions governing membership levels, contributions, and transparent decision-making that account for all categories of members.
13. **Balanced stakeholder representation:** A mix of business (VCD actors), education/science (innovation actors), and government or policy-making bodies.
14. **Human capabilities:** A management team sufficiently staffed and skilled to perform key roles appropriate to the cluster's maturity stage.

15. **Diversified financial model:** A balanced revenue stream from grants, membership dues, target contributions, service sales, and joint projects.
16. **Partner integration:** Operates within open ecosystems and builds its own partner network based on mutual benefit and transparency.
17. **Resilience over time:** The proven ability to maintain interaction mechanisms regardless of external factors or specific grant cycles.
18. **Direct joint projects:** Existence of collaborative projects initiated between participants (not just "directorate-led" projects).
19. **Economic or market effect:** Tangible results in the form of new products, expanded markets, or increased exports (not just events).
20. **Behavioral changes:** Demonstrable shifts in participant behavior toward deeper cooperation, joint investments, and collaboration.
21. **Final Impact:** Clusters demonstrate a significant impact on improving the innovativeness and resilience of value chains and ecosystems, as well as the dual transition (Green & Digital) of SMEs.

Cluster or Not a Cluster? (Final Summary)

Definition:

> A **Cluster (Cluster Organization)** is an entity that creates and maintains mechanisms for **collective business action** within Value Chains, acting as an **ecosystem orchestrator** to generate collective economic value.

What is DEFINITELY NOT a cluster:

- Any association where members do not interact with each other.
- A temporary consortium of companies working on a single project.
- An event agency whose primary activity is organizing one-off conferences.
- An organization focused exclusively on executing grant projects.
- A networking group that ignores the specifics of Value Chains.
- A service agency focused solely on the monetization of its own consulting services.
