Transcript form Quadruple Helix to AGIL

Slide 1 – Introduction

Welcome to this session. In the previous session, we looked at the **Quadruple Helix**: a model in which citizens, businesses, government, and knowledge institutions collaborate on innovation and societal change. Today we take it a step further. We introduce **Talcott Parsons' AGIL schema**, a classic sociological model that helps us understand society through four fundamental functions: **Adaptation, Goal Attainment, Integration, and Latency**.

Why is this important? Because the AGIL schema provides a framework to see not only collaboration between actors but also the underlying mechanisms that determine how systems function and change. This is crucial for complex challenges such as the energy transition, sustainability, and regional development.

Slide 2 – The AGIL Schema and Context

The AGIL schema was developed by Talcott Parsons, an influential sociologist. His work influenced thinkers like **Luhmann** and **Habermas**. While Habermas focuses on communication and consensus—reaching agreement based on truth and correctness—Parsons takes a more structural approach, similar to what we saw earlier with Bales' team roles.

Before diving deeper, here's a quick overview of the four subsystems:

- **Adaptation:** Businesses play a key role. They must adapt to markets, technology, and regulations.
- **Goal Attainment:** Governments set direction and priorities through policy and decision-making.
- **Integration:** Actors come together here. It's about social cohesion, collaboration, and conflict resolution.
- **Latency:** The cultural foundation. Values, norms, upbringing, and education ensure stability and continuity.

Today we focus mainly on **Latency** and **Integration**, as these are often overlooked in technological and economic analyses.

Slide 3 – Latency: The Preserving Mechanism

Latency is about socialization and cultural transmission. It preserves values and norms so that society doesn't collapse with every change. Think of upbringing, education, religion, and social customs. These processes ensure continuity but also create **path dependency**—repeating existing patterns slows change.

Example: Families and schools influence not only how children think about sustainability but also which study programs become popular. Universities adjust their offerings based on societal values. In a society where sustainability is a priority, you see more programs in green technology. If those values are absent, supply and demand for such products remain low.

Latency is not passive. It shapes which innovations succeed and shows that culture and morality directly influence science and the economy.

Slide 4 – Integration: Cohesion and Collaboration

The integration subsystem ensures cohesion. Here we use **Porter's Diamond** as an analytical tool. This model examines competition and collaboration based on four factors: factor conditions, demand conditions, related industries, and firm strategy and rivalry.

Example: ASML in Eindhoven. This company is a global leader in chip-making machines. Local demand in Eindhoven is not decisive; international markets are. Yet the region matters: knowledge institutions, infrastructure, and culture influence the innovation climate. For smaller regions, this is even more critical. Local demand, networks, and values shape how businesses collaborate and innovate.

Integration goes beyond formal cooperation. It involves underlying structures and cultures often invisible in models like the Triple or Quadruple Helix.

Adaptation: Businesses and Their Constraints

Businesses drive innovation but are bound by history. Machinery, investments, and company culture can slow progress. Large firms may prefer maintaining older products rather than writing off expensive equipment. Recruitment also matters: companies often hire people who fit the existing culture, reinforcing path dependency.

Adaptation is not just about technology—it's also about social and organizational factors.

Goal Attainment: The Role of Government

Government sets goals and frameworks but operates in a complex power field. Laws and regulations, such as nitrogen standards, influence policy. Lobby groups and political interests often make short-term priorities more important than long-term goals. Decision-making occurs at multiple levels—parliament, government, and local authorities—and is rarely straightforward.

Example: Climate policy. Everyone wants sustainability, but when economic interests enter the picture, tensions arise. Politicians must balance long-term sustainability with short-term electoral gains.

Closing (Extended Version)

We now have a comprehensive analytical framework for a Quadruple Helix approach. All elements of the Quadruple Helix are included, and we've shown how they converge in Parsons' integration subsystem. This offers a richer perspective than the classic Triple Helix.

However, nuance is needed. For large, internationally operating companies, **Leydesdorff's Triple Helix** still adds value. In that context, the focus shifts to global networks and knowledge flows, aligning with **Luhmann's** view that consensus, as envisioned by **Habermas**, is unattainable. Society is too complex and differentiated.

Yet discourse still matters. Communication and debate remain important, but with social media, a discourse dominated by truth and sincerity is far away. Instead, we see bubbles and fragmentation—sometimes painfully visible. This is not limited to politics; education and research also suffer. Multidisciplinary collaboration—a key condition for innovation—is often lacking.

All this underscores why models like AGIL and the Quadruple Helix are valuable. They help us understand structures and recognize the limits of consensus and cooperation. In upcoming sessions, we will further elaborate on the subsystems and link them to practical examples and action research.

That's it for this session. Thank you for listening, and see you next time.