

	ID	Titulo	Status	Interview	quotation	Observação
P1		A TEAM CULTURE BASED ON RESPONSIBILITY/OWNERSHIP SHARING ENABLES COLLABORATION				
	H1.1	A team culture based on the full sharing of responsibilities makes it possible to move from eventual to daily collaboration between team members.				
	H1.2	A team culture based on the full sharing of responsibilities makes it possible to move from low-quality to high-quality collaboration between team members.				
	H1.3	A team culture based on the medium sharing of responsibilities makes it possible to move from eventual collaboration between team members to daily collaboration.				
	H1.4	A team culture based on the medium sharing of responsibilities makes it possible to move from low-quality collaboration between team members to high-quality collaboration.				
P2		PROMOTING COLLABORATION REDUCES ORGANIZATIONAL SILOS/CONFLICTS	S1	"¿En qué medida la colaboración puede contribuir a reducir los silos entre desarrollo y operaciones? Dicho de otra forma, ¿con qué frecuencia crees que tienen que colaborar para reducir los silos? Respuesta (Manuel): Tendrían que colaborar muy frecuentemente , porque esto significa que el equipo de desarrollo no sabe o nunca visto cómo se crea un servidor o un servicio en cloud (porque hasta ahora eso está dentro de un equipo de operaciones) y no tiene conocimiento de cómo hacer un deployment o cómo saber si un deployment tiene éxito o no y no sabe qué se está monitorizando. Todo esto está ocultado al equipo de desarrollo y no es visible para ellos. Entonces, sí, en este punto se necesita mucha colaboración.	Manuel exemplifies a silo between development and operations, characterized by the absence of visibility and cross-knowledge. He states that frequent collaboration is necessary to overcome it, which reinforces the proposition that promoting collaboration helps reduce organizational silos. Although the comment does not directly address conflicts, the type of isolation described is often the source of misunderstandings and frictions, so the relation with the proposition still holds.	
	H2.1	Teams with daily collaboration are associated with fewer organizational silos.	Validated			Tt is necessary frequent colaborate to reduce the silo between development and operations. This "muy frecuente" is aligned with the idea of daily collaboration or something very close to it. He describes the lack of collaboration as the cause of the silo and frequent collaboration as the solution.

	ID	Titulo	Status	Interview	quotation	Observação
	H2.2	Teams with eventual collaboration are associated with fewer organizational silos.	Refute			Manoel does not consider eventual collaboration sufficient; instead, he emphasizes the need for frequent collaboration to break the silo. This weakens the validity of the hypothesis in the context described.
	H2.3	Teams with high-quality collaboration are associated with fewer organizational silos.				
	H2.4	Teams with low-quality collaboration are associated with fewer organizational silos.	Refute			Manuel's suggests that low-quality collaboration would likely be ineffective, as he views collaboration as a means of transferring knowledge, which requires meaningful and informative interactions.
P3		AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT IS ASSOCIATED WITH COLLABORATION. COLLABORATION IMPACTS AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT AND VICE VERSA. AUTOMATION AND COLLABORATION MUTUALLY FACILITATE THE ADOPTION OF THE OTHER, SO THEY ARE COMPLEMENTARY				
P4		A TEAM CULTURE BASED ON KNOWLEDGE SHARING ENABLES COLLABORATION	Validated	S1	Tenemos que crear una infraestructura, una base de datos, por ejemplo, y para ello el equipo de desarrollo crea un ticket. El equipo de operaciones entonces va con ellos y lo hacen juntos. Este es un tipo de colaboración/facilitación, está entre medias. Cuando hacemos esto no es solo para crear la base de datos, sino para que el equipo de desarrollo entienda cómo funciona el proceso, qué tipo de herramientas se usan, etc.	Manoel describes a scenario where development and operations teams collaborate to create a database. Beyond carrying out the technical task, collaboration is used as an opportunity for the development team to understand the processes, tools, and practices involved. This practice is a clear example of knowledge sharing, since the joint effort is aimed not only at delivering the product but also at transferring knowledge. This approach aligns with the proposition, as explicit knowledge sharing helps break down barriers between teams, fosters mutual understanding, and creates the conditions for richer and more frequent future collaborations. The comment serves as qualitative evidence that knowledge sharing can be a structuring element of collaboration.
	H4.1	A team culture based on full knowledge sharing are associated with daily collaboration between team members				It provides indirect support, but not enough evidence to validate.
	H4.2	A team culture based on medium knowledge sharing are associated with daily collaboration between team members				Not confirmed, the regularity is unclear. It could be occasional, but the account does not specify.
	H4.4	A team culture based on full knowledge sharing are associated with eventual collaboration between team members				
	H4.5	A team culture based on medium knowledge sharing are associated with eventual collaboration between team members				
	H4.6	A team culture based on minimal knowledge sharing are associated with eventual collaboration between team members				
	H4.7	A team culture based on full knowledge sharing are associated with high quality collaboration between team members	Validated			Manoel shows how knowledge is shared intentionally and in detail, which characterizes high-quality collaboration.
	H4.8	A team culture based on medium knowledge sharing are associated with high quality collaboration between team members				
	H4.10	A team culture based on full knowledge sharing are associated with low quality collaboration between team members	Refute			It refutes the hypothesis, the example reflects high quality, not low.

	ID	Titulo	Status	Interview	quotation	Observação
	H4.11	A team culture based on medium knowledge sharing are associated with low quality collaboration between team members				
	H4.12	A team culture based on minimal knowledge sharing are associated with low quality collaboration between team members				
P5						
P6		COLLABORATION IS A PROPERTY OF TEAMS IN WHICH SKILLS TAKE PRECEDENCE OVER ROLES, I.E., THE ROLE DEFINITION/ATTRIBUTIONS CODE; HENCE, IF THERE ARE ALREADY SEPARATE ROLES, RESPONSIBILITIES ARE VERY CLEAR AND COLLABORATION IS NOT FOSTERED OR PROMOTED				
	H6.2	Teams where skills take precedence over roles are associated with daily collaboration	Validated	S3	"I want a product person to opine on technical design, I want a technical person to opine on stories... because otherwise you kill the collaboration... If I had Silos between functions	True collaboration requires a Venn diagram overlap of expertise, allowing team members to provide input on one another's work.
	H6.3	Teams with well-defined and differentiated roles are associated with an eventual collaboration	Validated	S3		States that well-defined roles cause individuals to disclaim responsibility for anything beyond their remit, limiting interactions to only when absolutely necessary.
	H6.4	Teams where skills take precedence over roles are associated with eventual collaboration				
	H6.6	Teams where skills take precedence over roles are associated with high-quality collaboration	Validated	S1	"Es mejor mantener un equipo pequeño e ir a buscar cross-funcionalidad con más responsabilidad compartida que es típicamente el modelo T shape	Manuel Pais argues that T-shaped or comb-shaped skillsets are better than isolated roles. By breaking down internal silos, this approach creates a more robust and effective collaborative environment.
	H6.7	Teams with well-defined and differentiated roles are associated with a low-quality collaboration				
	H6.8	Teams where skills take precedence over roles are associated with low-quality collaboration				
P7		A COLLABORATION-BASED CULTURE REQUIRES ALIGNMENT OF DEV & OPS GOALS				
	H7.2	Teams aligned with product thinking are associated with daily collaboration	Validated		"From the moment you have shared objectives and each one has to do their part, you have a real team... What we do together is greater than each of us alone."	It reinforces that shared goals create a 'true team' that collaborates continuously, rather than individuals merely doing 'their part.'
	H7.3	Teams aligned with local optimization are associated with eventual collaboration				
	H7.4	Teams aligned with product thinking are associated with eventual collaboration				
	H7.6	Teams aligned with product thinking are associated with high-quality collaboration.	Validated		"...you have a real team and you can have a greater impact... No one can say 'Oh, I did my part, I delivered', and everyone needs to collaborate... instead of a group of individuals each doing their part."	Goal alignment (Product Thinking) enhances the quality of collaboration. Alexandre highlights that this eliminates the 'I've done my part' mentality (low-quality collaboration), leading to a much greater impact.
	H7.7	Teams aligned with local optimization are associated with low-quality collaboration	Validated		"...a lo mejor los incentivos están mal porque esos incentivos están poniendo a los unos contra los otros [otimização local]."	

ID	Titulo	Status	Interview	quotation	Observação
P8	A TEAM CULTURE BASED ON METRICS/VISIBILITY/FEEDBACK ENABLES COLLABORATION		Practitioners 1 and 2	<p>Practitioner 1: "We have metrics for throughput, response latency, and others that we not only track but also set as our targets. Our customers know they can rely on these. The metrics are monitored automatically, so we can quickly respond whenever something falls outside the expected range."</p> <p>Practitioner 2: "I think the first thing is</p>	The accounts illustrate how metrics, visibility, and feedback shape collaboration between teams. The first highlights the use of metrics such as throughput and latency, which are automatically monitored and shared with customers. This creates a common foundation of visibility, enabling teams to react jointly to deviations. The second
	H8.1	Teams with a culture based on metrics/visibility/feedback are associated with daily collaboration.			
	H8.3	Teams with a culture based on metrics/visibility/feedback are associated with high-quality collaboration.	Validated		<p>Os dois comentários descrevem mecanismos que aumentam a qualidade da colaboração: Métricas fornecem visibilidade objetiva -> base para decisões conjuntas. Feedback recorrente permite ajustes e equilíbrio -> colaboração mais efetiva.</p>
P9	RESPONSIBILITY/OWNERSHIP SHARING IS A PROPERTY OF CROSS-FUNCTIONALITY/SKILLS TEAMS		Manoel and Practitioner 1	<p>Manoel interview: "...tenemos equipos más autónomos, con más responsabilidad compartida (end-to-end) y en los que esperamos ver menos colaboración con otros equipos (menos dependencias). Porque lo que estamos intentando hacer es un equipo más capaz de hacer todo el ciclo de vida completo. "</p>	The interviews illustrate how metrics, visibility, and feedback shape collaboration between teams. The first highlights the use of metrics such as throughput and latency, which are automatically monitored and shared with customers. This creates a common foundation of visibility, enabling teams to react jointly to deviations. The second emphasizes the
	H9.1	Teams characterized by cross-functionality/skills are associated with full responsibility/ownership sharing.	Validated		<p>Manuel and Practitioner 1 comments suggest that cross-functional or stream-aligned teams tend to share end-to-end responsibility and have the autonomy to carry out the entire lifecycle.</p>
	H9.2	Teams not characterized by cross-functionality/skills are associated with full responsibility/ownership sharing.	Refute		<p>Manuel and Practitioner 1 comments suggest that cross-functional or stream-aligned teams tend to share end-to-end responsibility and have the autonomy to carry out the entire lifecycle.</p>
	H9.3	Teams characterized by cross-functionality/skills are associated with medium responsibility/ownership sharing.			<p>The comments emphasize the intention to achieve full responsibility/ownership sharing, not just medium.</p>
	H9.4	Teams not characterized by cross-functionality/skills are associated with medium responsibility/ownership sharing.			
	H9.6	Teams not characterized by cross-functionality/skills are associated with minimal or null responsibility/ownership sharing.	Validated		<p>The interviewees reinforce the idea that when a team is not cross-functional, it depends on other teams and cannot assume full ownership.</p>
P10	RESPONSIBILITY/OWNERSHIP SHARING REDUCES ORGANIZATIONAL SILOS/CONFLICTS	Validated	Manoel and Practitioner 1	<p>To reduce silos, it is essential to collaborate frequently in the early stages to ensure information sharing.</p> <p>Paes interview: "el equipo de desarrollo no sabe o nunca visto cómo se crea un servidor o un servicio en cloud (porque hasta ahora eso está dentro de un equipo de operaciones) y no tiene conocimiento de cómo hacer un deployment o cómo saber si un deployment tiene éxito o no y no sabe qué se está monitorizando. Todo esto está ocultado al equipo de desarrollo y no es visible para ellos. Entonces, sí, en este punto se necesita mucha colaboración."</p> <p>Practitioner 1: "If they're closer in time</p>	<p>Paes highlights the practical consequences of lacking shared ownership (developers without knowledge of the full cycle, dependency on operations).</p> <p>Practitioner 1 explicitly states the organizational consequence: if each area only focuses on its own part, the result is conflict and power struggles. This supports the proposition, since both accounts indicate that sharing responsibilities is the path to reducing silos and conflicts.</p>

	ID	Titulo	Status	Interview	quotation	Observação
	H10.1	Teams characterized by full responsibility/ownership sharing are associated with organizational silos.	Refute			Both Paes and Practitioner 1 point out that the absence of shared responsibility is what creates barriers between functions and drives organizational conflicts.
	H10.2	Teams characterized by medium responsibility/ownership sharing are associated with organizational silos.				
	H10.3	Teams characterized by minimal or null responsibility/ownership sharing are associated with organizational silos.	Validated			Paes reports that developers without visibility into critical processes become dependent on another team, creating functional barriers. Practitioner 1 emphasizes that the lack of shared responsibility leads to conflicts between areas, indicating that
P11		RESPONSIBILITY/OWNERSHIP SHARING IS A PROPERTY OF ORGANIZATIONAL STRUCTURES THAT RELY ON AN ENABLER (PLATFORM) TEAM. THE EXISTENCE OF PLATFORM TEAMS DOES NOT LEAD TO A SEPARATION OF RESPONSIBILITIES BUT RATHER THEY BECOME FACILITATORS AND MAKE OWNERSHIP SHARING POSSIBLE, UNLIKE DEV OPS (BRIDGE) TEAMS THAT BECOME NEW SILOS WITH THEIR OWN RESPONSIBILITIES (E.G., DEPLOYMENT, MONITORING, ETC.)	refute	Manoel Paes and practitioner 2	Paes interview: "En teoría, estos equipos pueden hacer todo por sí mismos, pero esto no es factible desde el punto de vista de carga cognitiva, de tamaño de equipos, etc. Además, muchos equipos no tienen el conocimiento necesario. Entonces, por esto viene Team Topologies y plantea la necesidad de equipos de enabling y un servicio de plataforma que tiene que ser construidos de manera que realmente reduzca, y no incremente, la carga cognitiva".	Paes indicates that stream-aligned teams face practical limitations in taking full end-to-end responsibility, due to cognitive load and the lack of specialized knowledge. In this context, platform or enabling teams act as facilitators: they do not assume isolated responsibilities that would create new silos, but instead enable core teams to share ownership effectively by abstracting part of the operational complexity.
	H11.1	Full responsibility/ownership sharing are associated with organizational structures that rely on an enabler (platform) team.	refute			
	H11.2	Medium responsibility/ownership sharing are associated with organizational structures that rely on an enabler (platform) team.				
P12		RESPONSIBILITY/OWNERSHIP SHARING IS A PROPERTY OF TEAM SELF-ORGANIZATION AUTONOMY		Manoel Paes	Manoel interview: "Un equipo autónomo tiene que compartir más responsabilidad dentro del equipo, incluso la definición de producto y la definición de valor al cliente." "...tenemos equipos más autónomos, con más responsabilidad compartida (end-to-end)"	For Manoel Paes, responsibility/ownership sharing is a characteristic strongly associated with self-organization autonomy, especially in stream-aligned, end-to-end teams. Yet, Manoel's comments suggest it should be treated as an ideal and common attribute, rather than an absolute and universal property.
	H12.1	Teams characterized by self-organization autonomy are associated with full responsibility/ownership sharing.	Validated			Manoel emphasizes that autonomous teams must share more responsibility within the team. He describes stream-aligned teams as end-to-end and owning their work. This means they share full responsibility and ownership according
	H12.2	Teams characterized by self-organization autonomy are associated with medium responsibility/ownership sharing.				
P13		A TEAM CULTURE BASED ON RESPONSIBILITY/OWNERSHIP SHARING ENABLES COMMUNICATION		Practitioner 1	Practitioner 1: "from the moment you value collaboration a lot, you will make the teams talk to their neighbors and want to share responsibility for something bigger."	Practitioner 1 suggests that a sharing culture not only strengthens the sense of common mission but also creates the need for constant communication. However, the validation is partial because it focuses on collaboration as the main driver, without clarifying whether communication is an exclusive consequence of sharing or also influenced by other cultural factors.
	H13.2	Teams characterized by full responsibility/ownership sharing are associated with frequent communication.	Validated			This aligns well with the full-sharing scenario, where teams assume broad responsibility and must communicate to coordinate their deliveries.
	H13.3	Teams characterized by medium responsibility/ownership sharing are associated with poor/rare communication.				

	ID	Titulo	Status	Interview	quotation	Observação
	H13.4	Teams characterized by medium responsibility/ownership sharing are associated with frequent communication.				
	H13.5	Teams characterized by minimal or null responsibility/ownership sharing are associated with poor/rare communication.	Validated			Without valuing collaboration and sharing responsibility, there would be no incentive to engage with neighboring teams.
P14		RESPONSIBILITY/OWNERSHIP SHARING IS ASSOCIATED WITH THE TRANSFER OF WORK BETWEEN TEAMS. IF THERE IS NO SHARED RESPONSIBILITY, THERE IS NECESSARILY A TRANSFER OF WORK BETWEEN DEVELOPMENT TO PRODUCTION AND OPERATION TEAMS (AND VICE VERSA)		Manoel Paes and Practitioner 2	Paes interview: "Tenemos que crear una infraestructura, una base de datos, por ejemplo, y para ello el equipo de desarrollo crea un ticket. El equipo de operaciones entonces va con ellos y lo hacen juntos. Este es un tipo de colaboración/facilitación, está entre medias. Cuando hacemos esto no es solo para crear la base de datos, sino para que	Paes describes a situation that involves collaboration and cross-learning. Practitioner 2 confirms that when there is no sharing of responsibility, there is a transfer of tasks between teams.
	H14.1	Teams characterized by full responsibility/ownership sharing are associated with the absence of work transfer between teams.	Validated			Without valuing collaboration and sharing responsibility, there would be no incentive to engage with neighboring teams.
	H14.2	Teams characterized by medium responsibility/ownership sharing are associated with the absence of work transfer between teams.				
	H14.3	Teams characterized by minimal or null responsibility/ownership sharing are associated with the presence of work transfer between teams.	Validated			Practitioner 2 states that when there is no shared responsibility, tasks are simply handed off.
	H14.1'	The absence of work transfer between teams is associated with teams characterized by full responsibility/ownership sharing.	Validated			inverse of H14.1
	H14.2'	The absence of work transfer between teams is associated with teams characterized by medium responsibility/ownership sharing.				
	H14.3'	The presence of work transfer between teams is associated with teams characterized by minimal or null responsibility/ownership sharing.	Validated			inverse of H14.3
P15						
P16						
P17						
P18						
P19		P19. CROSS-FUNCTIONALITY/SKILLS REDUCES ORGANIZATIONAL SILOS/CONFLICTS				
	H19.1	Teams characterized by cross-functionality/skills are associated with fewer organizational silos.	Validated	S2, S4	"If I had Silos between functions, then it's just going to have friction... and then you're going to have a VP of product fighting with a VP of engineering... So, I think it's important to have a multidisciplinary team... to establish these trust relationships." "Hay gente que dice que esto al final es un silo... Yo digo que sí es un silo, pero es un silo distinto que tiene valor... estamos diciendo que este equipo tiene un enfoque muy claro en un producto... Y es verdad que este equipo tienen menos conocimiento de lo que pasa en otros equipos, pero esto lo hacemos aposta."	Alexandre associa explicitamente a falta de multidisciplinaridade (silos entre funções) a "lutas" e conflitos. A presença de skills variados no mesmo time cria laços de confiança e reduz esse atrito organizacional. Manuel Pais refina o conceito: a multidisciplinaridade elimina o silo funcional (barreira de handoff), mas cria intencionalmente um "silo de produto" (foco e autonomia), que ele considera positivo pois reduz dependências externas.
	H19.2	Teams not characterized by cross-functionality/skills are associated with the presence of organizational silos.				

	ID	Titulo	Status	Interview	quotation	Observação
P20		IF A TEAM IS CHARACTERIZED BY CROSS-FUNCTIONALITY/SKILLS THIS WILL INCREASE AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT				
	H20.1	Teams characterized by cross-functionality/skills are associated with the use of automated application life-cycle management.	Validated		<p>"...do you believe that this multidisciplinary perspective of the team can lead to the automation of the software lifecycle? / Interviewee: Yes, exactly. Multidisciplinarity is crucial... Because automation comes from experience... Both life experience and diversity... Even if we're talking about people who automate things. And another person who automates in the backend..."</p>	<p>A automação nasce da experiência combinada e da diversidade. Ele argumenta que ter pessoas com diferentes skills (ex: alguém focado em infraestrutura junto com alguém de backend) no mesmo time permite identificar oportunidades de automação ("sensitivity of realizing that this is being very manual") que seriam perdidas em times isolados. Ele cita exemplos práticos de troca de conhecimento gerando automações (ex: git hooks)</p>
P21		ORGANIZATIONAL SILOS/CONFLICTS MAKE THE ADOPTION OF AN AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT DIFFICULT	Validated	S1		<p>Paes says that it 'makes things very difficult because instead of automating it, each silo tries to do it within its own silo,' indicating that each silo acts in isolation, consuming time and effort, which slows down the automation process. However, this can be useful when the automation involves more than one team; if it's internal, it doesn't interfere with their work.</p>
	H21.1	The presence of organizational silos/conflicts is associated with difficulty in adopting automated application life-cycle management.	Validated			
P21						
P22		METRICS, VISIBILITY & FEEDBACK ENABLES AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT		S2, S3	<p>S1: "I believe you can't simply blindly trust automation, and metrics are like the pulse that determines if things are working or not. We have feedback from this process, and human supervision is important."</p> <p>"So, metrics are essential for us to know if things are working as expected, and we have alerts to notify us when something isn't going well."</p> <p>"As we're a platform team, some metrics are very important to us, as we sign contracts with our customers, such as Service Level Objectives (SLO)"</p> <p>Practitioner 2: "Lucas Alves: So in your</p>	<p>S2 demonstrates that metrics are crucial for monitoring and validating automation, highlighting the importance of feedback and visibility in enabling the supervision and adjustment of automated processes.</p> <p>S3 highlights that visualizing metrics helps maintain automation, linking indicators of quality, agility, and process flow to the automated workflows.</p>
	H22.1	Teams characterized by metrics, visibility, and feedback are associated with the adoption of automated application life-cycle management.	Validated			
P23		AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT ENABLES SKILLS/KNOWLEDGE SHARING	Validated	S2	<p>Do you think that by automating and focusing efforts on this, it will help me share knowledge between these two teams?</p> <p>Interviewee: Yes, definitely. I would say that, as I gave my example, the limitation of the way I asked for permission to do it</p>	
			Validated		<p>...Do you think that by automating... it will help me share knowledge between these two teams? / Interviewee: Yes, definitely... I would say that, as I gave my example... Just giving the example of multidisciplinarity, how much his experience alone has already contributed to teaching me a lot of other things... everyone found out."</p>	

ID	Titulo	Status	Interview	quotation	Observação
P26					
P27					
P28	ENABLER (PLATFORM) TEAMS PROVIDE AUTOMATED APPLICATION LIFE-CYCLE MANAGEMENT			Practitioner 2: "Airflow, I see a lot of this team, the Central team that maintains Airflow for the data science teams in corporations. So this team is responsible for maintaining the Airflow infrastructure and the various Airflow instances running, but the teams that only use it don't need to worry. For them, it's peace of mind. Platform as a service and there's the Central team that does this."	Directly validates the proposition by illustrating a practical case.
H28.1	Teams characterized as enabler (platform) teams are associated with providing automated application life-cycle management platform services.	Validated			