

Yaakoub Hartem: Engineering the Trust Layer of the Digital Economy

How the founder of Algeria Certify and TKAWEN is transforming digital certificates into a verifiable, secure, and instant trust infrastructure for emerging markets.



Wilaya d Alger, Algeria Feb 21, 2026 ([IssueWire.com](https://www.IssueWire.com)) - In many emerging economies, education has scaled. Training programs multiplied. Skills improved.

Yet one critical layer remained fragile: trust.

Credentials exist — but verification is slow. Skills exist — but credibility is uncertain. Institutions operate — but interoperability is missing.

A new generation of builders is beginning to address this invisible bottleneck by redesigning the foundations of credibility itself.

Among them is Yaakoub Hartem — Algerian entrepreneur, safety and industrial risk engineer, and founder of TKAWEN and Algeria Certify — initiatives positioned not merely in education technology, but at the emerging intersection of learning systems and digital trust infrastructure.

From Risk Engineering to System Architecture

Hartem's path did not originate in startups or venture capital. He was trained in industrial safety and risk prevention at University of Badji Mokhtar Annaba — a discipline centered on preventing failure before it occurs.

Working across training centers, entrepreneurship programs, and digital platforms for over eight years, he repeatedly encountered the same structural contradiction:

Skills were real. Certificates were issued. But trust remained manual.

Organizations still relied on phone calls, stamped papers, and administrative processes to confirm qualifications. Hiring decisions slowed down. Fraud risks increased. International recognition became inconsistent.

Hartem began to interpret the issue not as an educational weakness — but as a missing infrastructure layer.

The Credential Bottleneck

Across North Africa and many developing markets, the inability to instantly verify professional qualifications creates systemic friction:

- Delayed employment integration
- Administrative overload for institutions
- Rising certificate fraud
- Limited cross-border portability of skills

As education digitizes, this bottleneck grows rather than disappears. Scaling learning without scaling verification produces an economy where skills move faster than trust.

This gap became the foundation of Hartem's long-term vision.

TKAWEN — Connecting Learning to Economic Reality

Rather than launching a simple training center, Hartem built TKAWEN as a structured ecosystem linking skills acquisition to employability pathways.

The platform delivers:

- Professional training programs aligned with market demand
- Practical project-based skill validation
- Support frameworks for young professionals and project holders
- Digitally traceable certification workflows

More than 1,200 digital certificates have already been issued within the ecosystem, initiating early behavioral change toward verifiable credentials.

But digitization alone was not the destination — only the transition.

Algeria Certify — Trust as Infrastructure

Recognizing that issuing certificates does not solve credibility at scale, Hartem created Algeria Certify

as a Trust-as-a-Service platform designed to make verification programmable.

The system enables institutions to:

- Issue secure digital certificates
- Validate credentials via unique codes and QR verification
- Access institutional analytics dashboards
- Provide public verification portals
- Monitor real training outcomes

Its core principle is simple:

Trust should not depend on human mediation. It should function as infrastructure.

Rather than treating verification as paperwork, the platform treats it as a protocol — a persistent layer connecting institutions, learners, and employers.

Institutional Recognition and Sovereign Alignment

The project received official startup patent recognition under Ministerial Decision 1275 from the Algerian Ministry of Higher Education and obtained national innovation labels from the Algerian Ministry of Knowledge Economy including the Innovative Project Label and Startup Label.

This positioning integrates the initiative into the country's broader digital transformation strategy rather than leaving it as an isolated private platform.

International Positioning

The ecosystem gained international validation when TKAWEN was ranked by Tracxn Global as the #1 Online Education Startup in Algeria.

Hartem was also selected among 450 startups to participate in the international acceleration program ASEP in South Korea, and has appeared in multiple regional innovation and entrepreneurship conferences as a speaker and exhibitor.

These signals positioned the initiative beyond a local EdTech narrative and closer to a broader digital infrastructure conversation.

Beyond EdTech: The Trust Layer Thesis

Rather than operating inside the education sector, Hartem's work increasingly positions itself beneath it.

The objective is not to build another learning platform — but to establish a verification layer capable of linking skills, institutions, and labor markets through programmable trust.

In this model:

- Education produces skills.
- Verification produces mobility.
- Trust produces economic participation.

The absence of this layer explains why many developing economies train talent faster than they integrate it.

Structural Impact

Observers often describe Hartem less as a software founder and more as a systems architect focused on removing friction between competence and opportunity.

His work concentrates on three converging goals:

- Engineering institutional credibility
- Eliminating verification delays
- Enabling scalable recognition of human capital

As demographic growth accelerates workforce competition across emerging markets, verification becomes not administrative — but economic infrastructure.

What Comes Next

Digital transformation is rapidly standardizing identity, payments, and communication. Credentials are likely the next layer.

If verification becomes instant and interoperable, labor markets shift from reputation-based hiring to evidence-based hiring.

Platforms solving trust at scale therefore transition from optional services to foundational systems.

Hartem's trajectory indicates a long-term attempt to participate in that layer.

Conclusion

Yaakoub Hartem represents a new category of builder emerging from developing ecosystems — one focused less on applications and more on architecture.

Through TKAWEN and Algeria Certify, his work targets an often invisible component of the modern economy: the infrastructure that allows skills to be believed.

As verification evolves from administrative procedure to digital protocol, early builders of trust

infrastructure may shape how human capital circulates globally.

In that context, the question is no longer whether credentials will be digital — but which systems will make them credible.

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