RULES AND TECHNICAL GUIDELINES

Summary

DJANTA TECH HUB 2026 CHALLENGE RULES

PREAMBLE

As part of the implementation of the Togo Digital National Strategy and the promotion of technological innovation in Togo, the Djanta Tech Hub organizes challenges for the ecosystem.

This national competition comprises two distinct and complementary programs:

- Innov'Action – Innovation Challenge
- Idée-Action – Hackathon

The challenges aim to identify, promote and support innovative solutions that address national development priorities in strategic sectors.

ARTICLE 1: OBJECTIVES OF THE COMPETITION

The challenges pursue the following objectives:

1. Identify innovative solutions with a strong economic and social impact in priority sectors;
2. Supporting selected teams in structuring, developing and bringing viable products or services to market;
3. To contribute to strengthening and structuring the national ecosystem of innovation and technological entrepreneurship.

ARTICLE 2: PROGRAMS AND ELIGIBILITY REQUIREMENTS

The two programs focus in particular on the following sectors, without this list being exhaustive: Agriculture, Education, Crafts, Tourism, Finance, Logistics, SME Productivity, Optimization of public services and other national priorities.

2.1 Innov'Action (Innovation Challenge)

The program is open to startups, small and medium-sized enterprises (SMEs), social enterprises, individual entrepreneurs, researchers, academics, professionals, and non-governmental organizations (NGOs).

Submitted projects must have reached a sufficient level of maturity and have, at a minimum, a functional prototype, a minimum viable product (MVP) or a technically demonstrable solution.

2.2 Idée-Action (Hackathon)

The program is aimed at students, recent graduates, and young professionals at the beginning of their careers.

The expected projects should be at the ideation stage, whether it is a pre-ideation phase or an initial idea, without a prototype or a minimum viable product (MVP) being required at this stage.

ARTICLE 3: CONDITIONS OF PARTICIPATION

3.1 General Eligibility

Each candidate or team may only submit one application and to one program.

All team members must be Togolese citizens or legal residents of Togo.

Applications can be submitted in French or English. Communications and presentations during bootcamps can also be given in French or English.

Teams consist of two (2) to five (5) members. Individual applications are accepted for the "Innov'Action" program, although collaboration is strongly encouraged.

The participation of inclusive teams (gender, region, people living with disabilities) is strongly encouraged.

3.2 Participant Engagement

All candidates agree to abide by the competition's code of conduct, which is based on collaboration, mutual respect, ethics, and the originality of projects.

Selected participants commit to taking part in all activities of the selected program (bootcamps , workshops, mentoring sessions, final events);

3.3 Originality of projects and solutions

Submitted projects must be original and not infringe on any third-party intellectual property rights.

Participants retain full ownership of their ideas, projects and solutions.

However, participants authorize the Djanta Tech Hub to use project information for communication, promotion and institutional reporting purposes.

3.4 Grounds for disqualification

Any application may be disqualified in the event of:

- providing false or misleading information;
- plagiarism or fraudulent appropriation of existing concepts;
- failure to comply with deadlines, competition rules or participation commitments.

ARTICLE 4: APPLICATION FILE

4.1 File Contents

Program	Required elements
Innov'Action	• Completed online form • Solution description (maximum 300 words) • Pitch deck • user interface demonstration or design (for MVP) • Team presentation • CV or LinkedIn profile of the team leader (optional)
Idée-Action	• Application form with information about the team • Summary of the initial idea (maximum 500 words) • Team member biographies • CV or LinkedIn profile of the team leader (optional)

4.2 Submission Procedures

Applications are submitted exclusively via the official platform through the link provided on the website : https://djantatechhub.gouv.tg/

ARTICLE 5: COMPETITION CALENDAR

The competition schedule follows the steps described on the call for applications website.

ARTICLE 6: JURY SELECTION PROCESS

The projects are evaluated by an independent jury based on the following criteria:

1. Relevance and alignment with national priorities;
2. Innovative and creative nature of the solution;
3. Potential for economic and social impact;
4. Quality, complementarity and commitment of the team;
5. Technical feasibility and viability of the project.

ARTICLE 7: PRICES AND OPPORTUNITIES

7.1 Innov'Action – Winning Projects

The selected teams will notably benefit from:

- access to the Djanta Innovation Challenge Bootcamp ;
- participation in the final pitch day;
- integration into the Djanta Tech Hub incubation program ;

- support including mentoring, technical assistance, access to coworking and funding opportunities;
- visibility among investors and partners.

7.2 Idée-Action – Best Teams

The selected teams will notably benefit from:

- participation in a Sprint and Bootcamp Hackathon;
- Final Pitch Day ;
- access to a pre-incubation program ;
- support in designing MVPs, mentoring, access to coworking spaces and funding opportunities;
- visibility.

ARTICLE 8: INTELLECTUAL PROPERTY

Participants retain full intellectual property rights to their projects. The Djanta Tech Hub is authorized to use their work for communication, promotion, and reporting purposes.

ARTICLE 9: DATA PROTECTION

In accordance with the provisions of Law No. 2019-014 of October 29, 2019 relating to the protection of personal data, participants consent only, on the relevant legal bases, to the use of their personal data in the context of communications relating to the Djanta challenges.

ARTICLE 10: COMPLAINTS

Claims relating to any problem or event related to the challenges are only admissible within a maximum period of fifteen (15) calendar days from the proclamation of the results.

ARTICLE 11: ACCEPTANCE OF THE REGULATIONS

Submitting an application constitutes full and unreserved acceptance of these regulations. All participants agree to abide by all of its provisions.

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TECHNICAL GUIDELINES

Djanta Tech Hub Challenge

Relevant Challenge Sector: Public Service

Preamble

These guidelines are intended for teams participating in the Djanta Tech Hub challenge whose solution falls under the Public Service category. They provide a framework to guide these teams towards reusable, interoperable, and sustainable solutions that serve Togolese government agencies and citizens.

These recommendations apply regardless of the nature of the contribution: developing a solution from scratch, configuring an existing tool, integrating multiple software components, or adapting an open-source solution. They are not a rigid set of specifications, but rather a set of best practices that each team is encouraged to incorporate into its approach, depending on the nature and context of its solution. A Minimum Viable Product (MVP) is fully acceptable: it is not expected that all practices will be implemented at the time of submission. The important thing is to demonstrate a well-thought-out approach and potential for future development.

The more a solution aligns with these guidelines — even partially at an MVP stage — the more likely it is to integrate into the national digital ecosystem, be adopted by public partners and institutions, and benefit from enhanced support within the Djanta Tech Hub.

GUIDELINE 1 — Open Source & Open Standards

> **Recommendation:** It is strongly recommended that the solution be based on open source components.

The use of open-source technologies promotes transparency, reusability, and technological sovereignty. For solutions intended to interact with public administration, this represents a decisive advantage: the government can audit, develop, and transfer the solution without depending on a single vendor. This also facilitates collaboration with the national digital ecosystem and the transfer of skills to local teams.

Where possible, the data formats, exchange protocols and interfaces exposed would benefit from relying on open and documented standards, accessible to any player in the ecosystem without technical barriers.

Associated best practices:

- Prefer open data formats for exchanges and exports: JSON, XML, CSV, PDF/A, ODF.
- **Relying on standardized API protocols:** REST/JSON, GraphQL , OpenAPI 3.x.
- Limit as much as possible the dependencies on non-substitutable proprietary components.

Premise Deployment & Infrastructure Portability

> **Recommendation:** It is recommended that the solution be able to be deployed on a local or national infrastructure, independently of a specific third-party cloud service.

Infrastructure portability is a major asset for any solution targeting Togolese public administrations and organizations. A solution capable of running on local infrastructure will be more readily adopted in contexts where connectivity is limited, data confidentiality requirements are high, or cloud budgets are constrained. For an MVP, fully implemented portability is not essential; the key is to have considered the issue and avoid creating irreversible dependencies.

Not all solutions are expected to forgo cloud services, nor are they expected to be deployable on-premises from the MVP stage. It is simply advisable to consider portability from the design phase, so as not to create irreversible dependencies on a single provider.

Associated best practices:

- Clearly document external dependencies and, if possible, propose local alternatives (e.g., MinIO as an alternative to S3).
- Provide a deployment guide enabling a Togolese technical team to take control of the infrastructure.
- Consider low bandwidth contexts if the solution targets field uses.

GUIDELINE 3 — Interoperability & Openness to the Ecosystem

> **Recommendation:** It is recommended that the solution expose interfaces allowing its integration with other systems, including national platforms and public administration systems.

An interoperable solution is one that creates value beyond its own scope. By relying on recognized exchange standards, it becomes more easily integrated into existing processing chains, national platforms, or third-party products developed by other players in the ecosystem.

An interoperable solution can be easily integrated into existing government processing chains, shared between several public entities, and evolves the ecosystem as a whole.

Associated best practices:

- Expose a documented API in OpenAPI /Swagger format to facilitate integration by third parties.
- Align data models with national or sectoral repositories where they exist.
- Provide a data dictionary describing the fields exposed by the API.
- Provide standardized notification channels (SMS, email, push) if the solution includes alerts or communications.

GUIDELINE 4 — Safety by Design

> **Recommendation:** It is recommended to integrate good security practices from the design and implementation of the solution, rather than treating them as a secondary step.

Security is a prerequisite for trust in any public service solution. A vulnerable solution exposes its users, damages the reputation of its developers, and can compromise the entire chain in which it is embedded. Integrating security from the outset is not only a best practice, but also a guarantee of credibility with users and institutions.

Teams are encouraged to rely on recognized security frameworks (OWASP, best practices for secrets management, etc.) and to document the security choices made, in order to facilitate future audits.

Associated best practices:

- Implement authentication appropriate to the sensitivity level of the data processed (JWT, OAuth 2.0, etc.).
- Encrypt sensitive data in transit (HTTPS/TLS 1.2+) and consider encrypting it at rest.
- Never store sensitive data (passwords, API keys, credentials) in source code or Git repositories.
- **Rely on basic OWASP protections:** protection against SQL injection, XSS, CSRF, etc.
- Plan for logging sensitive actions with timestamps.

GUIDELINE 5 — Transparency, Traceability & Accountability

> **Recommendation:** It is recommended that significant actions in the system be traceable and that data processing be transparent to users and administrators.

Transparency is a key factor in adoption and trust, both for end users and for organizations deploying a solution. A solution that allows its administrators to understand what is happening, identify anomalies, and demonstrate the compliance of its processes will be more readily accepted, audited, and recommended.

For solutions that process personal data or make automated decisions, traceability is not just a good practice: it is also one of the data protection principles that any responsible digital actor must integrate.

Associated best practices:

- Set up an activity log for sensitive operations: creation, modification, deletion of data, connections.
- Document and, if possible, explain the automated decision-making logic integrated into the solution.
- List the personal data collected, justify its use and limit its scope to what is strictly necessary.
- Allow administrators to reliably view the action history.
- Clearly inform users about how their data is processed.

GUIDELINE 6 — Documentation & Skills Transfer

> **Recommendation:** It is recommended that the solution be accompanied by sufficient documentation to allow a local team to take ownership of it, maintain it and develop it further.

Documentation is often the neglected aspect of digital projects, yet it directly impacts the sustainability of a solution. A well-documented solution can be reused, improved, and passed on. It reassures organizations considering adopting it and facilitates the recruitment of new contributors or maintainers.

Within the context of the Djanta Tech Hub, which aims to strengthen Togo's digital ecosystem, the quality of documentation is also a sign of maturity and commitment to the local community. Teams are encouraged to document not only the technical operation of their solution, but also the architectural decisions that guided its development.

Associated best practices:

It is recommended to include the following deliverables in the submission. For an MVP, a clear README.md and a getting started guide are sufficient; the other elements are highly valued:

Document	Suggested content
README.md	Overview, prerequisites, quick start guide
Installation Guide	Step-by-step deployment or configuration
User guide	Manual for agents and/or end users
API documentation	OpenAPI (Swagger) specification of exposed endpoints
Contribution Guide	How to modify, configure or contribute to the solution

- Comment on the code or configuration files in complex parts, in French or English.

GUIDELINE 7 — Creating Measurable Value

> **Recommendation:** It is recommended that each solution clearly articulate the value it creates, for citizens and administrations, with concrete indicators.

A public service solution benefits from demonstrating its impact in a tangible way. Defining success indicators from the outset allows teams to better guide their development, prioritize high-impact features, and communicate convincingly with government agencies and citizens who benefit from the solution.

Djanta Tech Hub challenge values solutions that meet a real and documented need of the Togolese administration or the sub-region, whether it is a service to citizens, a public management issue or a daily use by agents and users.

Associated best practices:

- **Present a concrete use case:** identified problem, target beneficiary, expected impact.
- **Define relevant success indicators:** number of users, time saved for agents, reduction of errors, adoption rate, etc.
- Anchor the solution in a documented need of the Togolese administration or the sub-region.
- Consider integrating a dashboard or a monitoring mechanism, even a minimal one, to measure usage over time.

TECHNICAL GUIDELINES

Djanta Tech Hub Challenge

Sectors covered by the Challenge : Agriculture, Education, Finance, Tourism and Culture, Trade and Crafts, Logistics, Creative Industries, SME Productivity

Preamble

These guidelines are intended for teams participating in the Djanta Tech Hub challenge whose solutions are designed for the private market: startups, consumer applications, B2B tools, industry-specific platforms, or any other digital product that addresses a need in the Togolese market or the sub-region. Submitted solutions can be at various stages of development, from an MVP to an advanced prototype or a product already in production.

These recommendations provide a framework, not a rigid set of specifications. They are designed to adapt to the reality of each team: some best practices can be applied immediately regardless of the product stage, while others can be implemented gradually as the solution evolves and becomes more robust.

The evaluation will take into account the maturity level of the solution: what is expected of an MVP differs from what is expected of a production product. The important thing is to demonstrate a coherent approach and a clear understanding of the improvements to be made.

GUIDELINE 1 — Open Standards & Technical Interoperability

> **Recommendation:** It is recommended that the solution rely on open technical standards for its data formats and interfaces, regardless of its stage of maturity.

The choice of formats and technical protocols, even at an early stage, has a direct impact on the solution's future ability to integrate with other tools and be adopted by partners. Starting with open standards from the outset does not represent a significant additional effort, but avoids costly redesigns later.

Publishing open-source code is not a standard requirement for a commercial solution. However, the exchange formats and exposed interfaces would benefit from being based on standards accessible to all stakeholders in the ecosystem. API documentation can be enriched gradually as the product stabilizes.

Associated best practices:

- Use open data formats for exchanges and exports: JSON, XML, CSV, PDF/A.
- **Structure the interfaces according to standard conventions:** REST/JSON, GraphQL , OpenAPI 3.x.
- Avoid proprietary formats that would make the solution difficult for third parties to integrate.
- Document the APIs progressively in OpenAPI /Swagger format, as the interfaces stabilize.
- If part of the code is generic and reusable, consider publishing it as open source to benefit from community contributions.

GUIDELINE 2 — Portability & Avoidance of Vendor Lock-in

> **Recommendation:** It is recommended not to create irreversible dependencies on a single provider, even when the use of cloud services is justified.

Using cloud services is perfectly legitimate, and often even recommended to accelerate the development of a first product. The risk to anticipate is vendor lock-in: excessive dependence on a single provider can ultimately constrain technical choices and increase costs unexpectedly.

A minimal abstraction layer between application code and external services is usually sufficient to preserve future flexibility. It's not a major undertaking at the scale of a product under development, but it's a decision that can make a significant difference when scaling.

Associated best practices:

- Abstracting dependencies on cloud services (storage, messaging, authentication) behind replaceable interfaces.
- Favor services with open source or multi-vendor alternatives (e.g., S3-compatible, standard SMTP, standard OAuth).
- Document external dependencies and, where possible, their potential alternatives.
- Consider containerization (Docker / Docker Compose) to facilitate portability between environments, as the product becomes more consolidated.

GUIDELINE 3 — Interoperability & Openness to the Ecosystem

> **Recommendation:** It is recommended that the solution expose interfaces allowing its integration with other tools and services, starting with the essentials and gradually enriching them.

A solution that integrates easily with other tools has a real competitive advantage: it can be adopted more quickly, incorporated into existing workflows, and recommended by partners. Even at an early stage, exposing a minimal but consistent API lays the foundation for an open solution without requiring significant effort.

Interoperability is not an all-or-nothing proposition. A solution can start by exposing a few well-designed endpoints , then gradually enrich its ecosystem of integrations (webhooks , connectors, SSO) as user needs become clearer.

Associated best practices:

- Expose at least one functional API covering the core functions of the product, even if it is minimal at first.
- Rely on recognized authentication standards (OAuth 2.0, OpenID) Connect) rather than custom-built authentication systems .
- Document the exposed endpoints in OpenAPI /Swagger format , progressively as the API stabilizes.
- Consider event mechanisms (webhooks) once the business flows have been validated.
- Provide, where possible, a data dictionary or documentation of the exposed models.

GUIDELINE 4 — Modular & Scalable Architecture

> **Recommendation:** It is recommended to adopt a readable and maintainable code structure, adapted to the current level of complexity of the solution, and designed to evolve.

A complex architecture is not necessarily better than a simple one. In the early stages, a well-organized monolithic structure is often more appropriate than a premature microservices architecture . What matters is that the code remains readable, responsibilities are clearly separated, and configuration is externalized—all practices that don't slow down development but preserve scalability.

Modularity can be introduced gradually: starting with a clear separation between frontend, backend, and database is sufficient for the initial iterations. The breakdown into independent

business modules and the anticipation of increased workload can then occur naturally in subsequent iterations.

Associated best practices:

- Aim for a clear separation between the frontend, backend and database layers, even on a small scale.
- Externalize the configuration into environment variables (.env file) rather than hardcoding it.
- Avoid strong coupling between modules which would make any evolution difficult.
- Design cross-functional components (authentication, notifications) independently of the core business, as far as possible.
- Anticipate the increase in load and horizontal scalability as the user base grows.

GUIDELINE 5 — Safety by Design

> **Recommendation:** It is recommended to integrate security basics from the start, prioritizing the most critical practices and gradually strengthening the others.

Certain security practices are non-negotiable regardless of the product stage, because they cost almost nothing to implement early but are very difficult to correct once the product is in production: never expose secrets in the code, enable HTTPS, and implement minimal authentication are among these fundamentals.

Other measures, such as encryption at rest, advanced logging, and security audits, can be progressively strengthened as the product matures and gains users. The key is to have a clear understanding of the risks and a plan to address them.

Associated best practices:

- Never store sensitive data (passwords, API keys, credentials) in source code or Git repositories — regardless of the product stage.
- Enable HTTPS/TLS on all exposed environments.
- Implement authentication appropriate to the sensitivity level of the data processed (JWT, OAuth 2.0, etc.).
- **Rely on basic OWASP protections:** protection against SQL injection, XSS, CSRF, etc.
- Plan for logging of sensitive actions and a backup procedure, even a simplified one, before the public launch.

GUIDELINE 6 — Transparency, Traceability & Data Protection

> **Recommendation:** It is recommended to lay the foundations of data protection from the outset, focusing on the essentials: collect little, protect well, inform clearly.

The trust of early adopters is a valuable asset for any product in its launch phase. Handling their data carefully from the outset—collecting only what is necessary and clearly informing them about its use—lays the foundation for a lasting relationship and prevents trust issues that are difficult to repair.

More advanced mechanisms (comprehensive audit log, granular user rights management, on-demand deletion) can be introduced gradually. Personal data protection is also a growing requirement in African and international markets: anticipating these expectations from the design stage avoids costly redesigns later.

Associated best practices:

- Collect only the data strictly necessary for the operation of the service (principle of data minimization).
- Inform users, even briefly, about the data collected and its use.
- Document internally the personal data processed and the associated protection measures.
- Implement an activity log for sensitive operations, as the product evolves.
- Provide mechanisms that allow users to access and delete their data, where possible.

GUIDELINE 7 — Creating Measurable Value

> **Recommendation:** It is recommended that each solution be built around a clear hypothesis and demonstrable value for its users or for the market, even at an early stage.

Regardless of the product's stage, clearly defining the problem solved and the value delivered is what distinguishes a relevant solution from a mere technical exercise. For a product in the validation phase, a well-chosen primary metric—one that answers the question "Does this product actually solve the identified problem?"—is more valuable than a comprehensive dashboard.

Djanta Tech Hub challenge recognizes solutions rooted in a real and documented need within the Togolese market or the sub-region. Monitoring indicators can be simple at the outset and naturally evolve as the product matures and gains users.

Associated best practices:

- Clearly state the identified problem, the target beneficiary, and the expected impact.
- Identify at least one primary metric that allows you to measure the value created for the user.
- Anchor the solution in a documented need of the Togolese market or the sub-region.
- Implement a mechanism for collecting user feedback from the very first iterations.
- Enhance monitoring with additional indicators (retention, revenue, NPS) as the product evolves.