Company: Ministry of Municipalities & Housing (MOMAH), Riyadh, Kingdom of Saudi Arabia
Nomination Submitted by: Devoteam
Company Description: The Ministry of Municipalities and Housing (MoMAH) is a government entity in the Kingdom of Saudi Arabia responsible for overseeing urban planning, municipal services, rural development, and housing initiatives across the nation. The Ministry plays a central role in driving sustainable city deve
Nomination Category: Product & Service Categories - Business Technology Solutions
Nomination Sub Category: Compliance Solution
Nomination Title: Building Design Review Engine (BDRE)

1. You have the option to answer this final question: Reference any attachments of supporting materials throughout this nomination and how they provide evidence of the claims you have made in this nomination (up to 250 words):

    Total 1 words used.

    Attached

2. Which will you submit for your nomination in this category, a video of up to five (5) minutes in length about the the nominated new or new-version product or service, OR written answers to the questions for this category? (Choose one):

    Written answers to the questions

3. If you are submitting a video of up to five (5) minutes in length, provide the URL of the nominated video here, OR attach it to your entry via the "Add Attachments, Videos, or Links to This Entry" link above, through which you may also upload a copy of your video.

    A system developed using artificial intelligence and computer-aided building design systems automates the process of reviewing the list of municipal requirements and the conditions of Saudi Building Code, and performs an automated verification process for engineering plans to ensure their compliance with spatial planning and building code requirements. This project contributes to providing a tool for architectural design Firms to instantly review building designs and verify their compliance with the Saudi Building Code and its requirements prior to initiate the building permit issuance process. This reflects in the speed of building permit issuance and enhances the efficiency and compliance of construction projects.

4. If you are providing written answers for your submission, you must provide an answer to this first question: If this is a brand-new product, state the date on which it was released. If this is a new version of an existing product, state the date on which the update was released:

    - Beta Release (First Pilot Launch) – June 29, 2024

    - Full National Rollout (Official Launch) – January 31, 2025

5. If you are providing written answers for your submission, you must provide an answer to this second question: Describe the features, functions, and benefits of the nominated product or service (up to 350 words):

    Total 281 words used.

    The **Building Design Complaince Engine** is an automated system that streamlines construction permit approvals by digitally reviewing submitted 2D CAD and 3D BIM/Revit plans for compliance with Saudi building codes, design guidelines, and local regulations. It uses rule-based algorithms and AI to flag violations instantly, ensuring accuracy without manual intervention.

    - Automates the review of architectural and engineering drawings to ensure compliance with regulations such as the Saudi Building Code (SBC)

    - Analyzes CAD, BIM, and Revit files to identify architectural components like walls, windows, heights, and spaces.

    - Detects design violations automatically, reducing the need for manual inspections.

    - Assists municipal engineering teams in making faster and more accurate decisions.

    - Enables engineering offices to receive automated feedback and correct their designs efficiently

    - Provides a rich database of verified design and spatial data that supports Urban planning and zoning analysis, monitoring office compliance and performance, and preemptive quality control for architectural submissions

    Integrated within the **Balady platform** and connected to the **Umap geospatial system**, the **Building Design Complaince Engine** enables a seamless, end-to-end digital permitting experience. Upon plan submission, the engine runs in the background, performs checks, and updates relevant systems automatically.

    It generates **instant compliance reports**, allowing consultants to correct violations before final submission. This ensures consistency and fairness by applying the same regulatory criteria to all applicants.

    The **Building Design Complaince Engine** significantly **reduces review times**—from days to minutes—aligning with Vision 2030 goals to boost government efficiency and ease of doing business, targeting a **60% cut** in approval time.

    By automating up to **90% of design checks**, the engine improves submission quality and regulatory compliance, reducing human error and enhancing safety. It supports smarter, faster, and more transparent urban development across the Kingdom.

6. If you are providing written answers for your submission, you must provide an answer to this third question: Outline the market performance, critical reception, and customer satisfaction with the product or service to date. State monetary or unit sales figures to date, if possible, and how they compare to expectations or past performance. Provide links to laudatory product or service reviews. Include some customer testimonials, if applicable (up to 350 words):

    Total 191 words used.

    Since its rollout, the **Building Design Complaince Engine** has delivered strong results and received positive feedback from both users and officials. By April 2025, all major Saudi municipalities had integrated it into the Balady platform, enabling automatic pre-checking for thousands of permit applications.

    Its impact on service efficiency is clear: MoMAH's 60% review time reduction target is on track. Permits that once took weeks are now processed in hours or even instantly when compliant. Financially, the **Building Design Complaince Engine** is projected to save around SAR 28 million annually in operational costs, compared to manual reviews—well above its SAR 20 million development cost.

    The system has been praised locally as a breakthrough in digital urban services, supporting Vision 2030 goals. Officials note a rise in public satisfaction (up to 95%) thanks to features like instant feedback and transparency. Engineering firms value the ability to pre-check designs and reduce uncertainty.

    Internationally, the **Building Design Complaince Engine** has attracted attention in smart city and GovTech forums, with Balady recognized by entities like the ITU. The engine is setting a new standard for municipal e-services, delivering faster approvals, higher compliance, and broad user trust.

Attachments/Videos/Links:

[Building Design Review Engine (BDRE)](#)

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