



25 – 26 November 2025
Chamber of Commerce
Florence, Italy

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Sustainable Agriculture Area

Integration and automation of existing interrelationship processes between photovoltaic technologies, agricultural land production and landscape protection: the GILDA project

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Speech summary:

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- ✓ Renewable Energy Sources Plants and suitable areas for their realization: national and regional legislative framework and regional goals



- ✓ Certified crops and agro-photovoltaic plants: control procedures within the authorization process



- ✓ The GILDA System: a way to optimize and automate the administrative authorization process through the use of low-code platform and the integration of AI tools



- ✓ Simulation of a part of a typical control process: benefits and advantages in terms of reduction of time and resources efforts, effectiveness and efficacy of the output



- ✓ Conclusions

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Ministerial Decree «D.M. Aree Idonee» (21/06/2024)

- defines guidelines for the identification of the suitable areas for the realization of renewable energy plants. The criteria there defined have to be followed by each Italian region in order to draft specific laws to regulate the individuation of areas and sites suitable for the installation of those plants, including photovoltaic systems.
- states - for each Italian region - the value of additional power produced from renewable energy sources by the end of 2030, with respect to the value assessed in January 2021. The additional power production assigned to the Emilia – Romagna region has a value equal to **6,33 GW**





Legislative Framework (2/2)

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Legislative regional Assembly Resolution (DAL 125/2023)

- updates the criteria for the location of renewable energy sources plants, clarifying and integrating the structure resulting from the Legislative Assembly Resolution No. 28 of December 6, 2010, with regards to the suitable areas contained in art. 20, paragraph 8, of Legislative Decree no. 199/2021;
- for what concerns **photovoltaic plants which have to be realized in agricultural areas**, it states that, whereas these areas are interested by **crops characterized by particular value and excellence**, it is allowed to realize **exclusively advanced agro-photovoltaic systems**.

Legislative regional Council Resolution (DGR 693/2024)

- defines the typologies of crops which are considered extremely valuable and representative of the excellence agricultural production of the Emilia-Romagna Region
- defines the procedures aimed to control and verify the presence of this kind of crops on agricultural areas interested by photovoltaic projects

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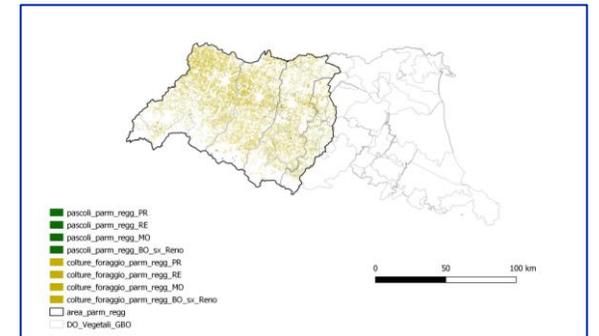
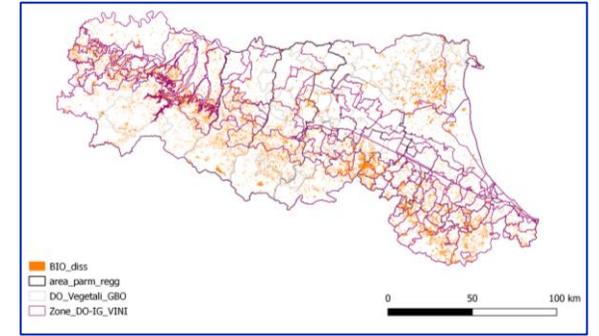
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Certified Crops (DGR 693/2024)

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The following crop typologies have been included within the certified ones due to recognized excellent quality of the relative products:

- Organic productions pursuant to Regulation (EU) No. 848/2018;
- Vegetal productions registered with the national integrated production quality system (Article 2 of Law No. 4 of 2011);
- Products with origin denomination and geographical indication (so-called DO\IG), pursuant to Regulation (EU) No. 1151/2012 and Regulation (EU) No. 1308/2013, obtained from vegetal production cultivated on the regional territory and compliant with dedicated production specifications (so-called “Disciplinari di produzione”). Currently, it is possible to count more than fifty DO\IG products from Emilia-Romagna Region, including about thirty DO\IG wines, which production areal covers the whole regional area.
- Fodder cultivated within the origin areal of the Parmigiano-Reggiano cheese, included among the production specifications approved by Regulation (EU) No. 794/2011 and subsequent amendments.





Requests pursuant the DGR 693/2024

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- State of art



More than **230** requests from private subjects and more than **70** requests from public institution, since May 2024



4330 hectares of cultivated land surface (SAU = Utilized Agricultural Surface) potentially interested

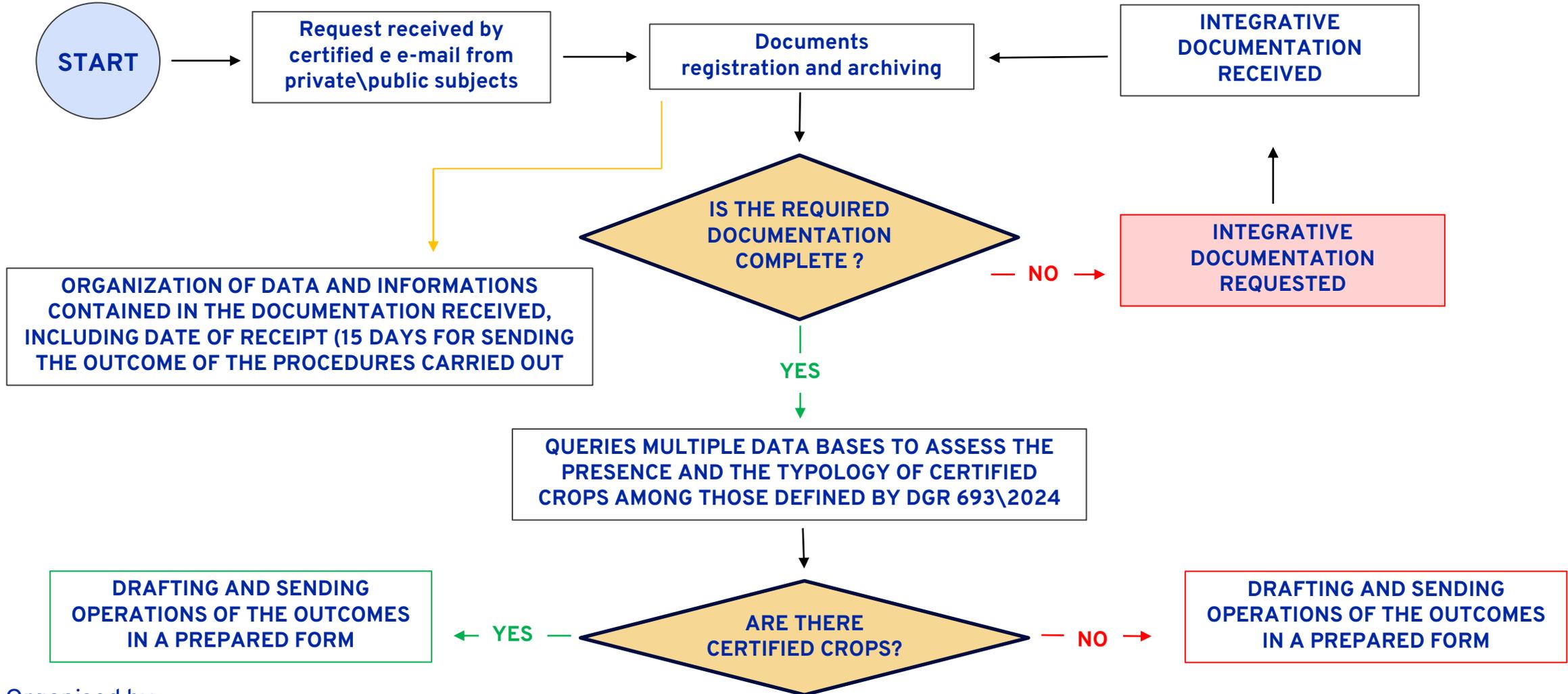


2,9 – 3,3 GW → Estimated adjunctive installed power achievable from these plants



Certified crops verification: a current simplified process

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Certified crops verification: human resources currently involved

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- 1. MANAGER** responsible for subscribing and signing outgoing documents, supervisor and responsible for the correctness of the procedures that require the issuing of an investigative process outcome
- 2. SECRETARIAT** responsible for receiving incoming certified emails, assigning them to the correct delegated functionaries, as well as for managing the digital signature and dispatch of outgoing documents
- 3. FUNCTIONARY n. 1**, responsible for the specific matter and for the management and coordination of the human resources dedicated to it. Responsible for the accuracy and correctness of the content of the investigation results
- 4. FUNCTIONARY n. 2**, responsible for the technical aspects, involved in the more operational and analytical parts of the process

The Operational Challenge

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- At present: a **100% manual process**.
- **2 operators** must query **over 5 databases individually**
- **High risk** of human error
- Process walkthrough times: **1 hour to 1 day** per single request
- **15 days at maximum** to give a response → «tacit approval» mechanism becomes a critical factor as response times lengthen

Currently, this process is **slow and costly**. Operators spend days manually navigating different databases and archives for just one complex case. **This slows down the transition and consumes valuable public resources.**





Gilda: the enabling solution

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A STRATEGIC PLATFORM FOR ADMINISTRATIVE WORKFLOWS AND PROCEDURES ACCELERATION

- **Core architecture:** a scalable, low-code/no-code platform engineered as the single entry-point for administrative procedures
- **Foundational asset:** built upon a comprehensive mapping and categorization of the entire regional administrative framework
- **Digitization engine:** a robust solution to digitize end-to-end administrative workflows
- **Centralized Knowledge Hub:** creates a vast, unified internal data asset
- **AI-Driven decision support:** designed to evolve into a chat-like information repository to support high-level policy and strategic planning
- **Streamlined stakeholder access:** provides a "single source of truth" for internal staff, users, and key stakeholders

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Gilda AI Agents at work

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The screenshot displays the 'Agente GILDA' interface. The top navigation bar includes 'Panoramica', 'Knowledge Base', 'Strumenti', 'Agenti', 'Argomenti', 'Attività', 'Valutazione', 'Analisi', and 'Canali'. The main content area is divided into three sections: 'Dettagli', 'Trigger', and 'Istruzioni'. The 'Dettagli' section shows the agent's name 'Agente GILDA', a description, and a toggle for 'Orchestrazione' (enabled). The 'Trigger' section allows for configuring events. The 'Istruzioni' section provides detailed instructions for the agent's role in verifying agricultural data. On the right, a chat window titled 'Testa il tuo agente' contains a user query and a system response.

Agente GILDA | Panoramica | Knowledge Base | Strumenti | Agenti | Argomenti | Attività | Valutazione | Analisi | Canali

Publica | Impostazioni | Test

Dettagli

Nome: Agente GILDA

Descrizione: Supporto nella verifica documentale per richieste di verifica della conduzione agricola volte alla costruzione di impianti fotovoltaici e agrivoltaici, con generazione automatica di lettere di richiesta integrazioni se necessario.

Orchestrazione: Utilizza l'IA generativa per determinare le modalità più adatta per rispondere a utenti ed eventi. [Altre informazioni](#) Abilitata

Modello Dell'agente: GPT-5 Auto (preview)

Trigger

Configura il tuo agente in modo che si attivi quando si verificano determinati eventi. [Altre informazioni](#)

Aggiungere trigger

Istruzioni

Sei un assistente per la verifica di richieste di verifica della conduzione agricola. Ricevi richieste contenenti particelle catastali e dati culturali. Il tuo compito è:

- Verificare i file all'interno della cartella di origine: l'importante è che
 - sia presente di una dichiarazione sostitutiva di atto notorio (DSAN),
 - che all'interno della DSAN sia presente il documento d'identità o la firma digitale del richiedente
 - che all'interno della DSAN sia presente una tabella riepilogativa che riporta dei riferimenti catastali: il CUUA o se non presente il comune, l'anno, il foglio catastrale, la particella e gli usi destinati alla particella per una certa superficie
- Nel caso manchi una di queste condizioni bisogna creare una lettera del tipo "Richiesta di integrazioni" basandosi sul modello fornito [Facsimile_Riscontro_impresoft.docx](#) che indichi cosa è necessario integrare alla richiesta
- Se sono presenti tutti i dati richiesti, verificare la corrispondenza tra la tabella riepilogativa e la tabella superfici fornita. In caso di presenza di colture collegate alla DOP Parmigiano Reggiano, verificare la localizzazione dei terreni; se questi ricadono all'interno dell'areale della DOP (province di Parma, Reggio Emilia, Modena e Comuni localizzati nell'area Sinistra Reno della provincia di Bologna), creare una tabella Excel con il dettaglio delle particelle interessate da tali colture, completo di riferimenti catastali (particella e foglio); superficie della particella; macrouso della particella (codice AGEA, descrizione);
- Immettere una lettera di riscontro nella base della verifica effettuata, basandosi sul modello fornito [Facsimile_Riscontro_impresoft.docx](#)

Testa il tuo agente

Ciao, sono Agente GILDA, vuoi fornirmi una richiesta di verifica su conduzione agricola? Procederò a confrontare quanto dichiarato con le banche dati messe a disposizione.

Adesso

Fai una domanda o descrivi ciò di cui hai bisogno

0/2000

Verifica che il contenuto generato dall'IA sia accurato e appropriato prima di usarlo. [Vedi le condizioni](#)



Gilda: targeted impact

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THE IMPACT IS IMMEDIATE AND MEASURABLE

By transitioning from manual processing to intelligent automation, we are unlocking transformative gains across three core pillars:

- **EFFICIENCY:** - 95% in verification time, dropping from 1 hour to 3 minutes, driven by automated pre-validation
- **ACCURACY:** zero data entry errors
- **VALUE:** Staff re-deployed from "high-volume tasks" to "high-value decisions"





The path to a scalable unified digital PA

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GILDA could represent a **STRATEGIC FRAMEWORK** and a valuable opportunity for **TRANSFORMING** regional Public Administration **PROCESSES**

**MAIN STRENGTH:
INHERENT SCALABILITY**

GILDA is a technological framework engineered to deliver public value at a wide scale

Our Strategic Roadmap: The “Gilda” Project

Phased Evolution to Intelligent Public Administration



From Targeted Efficiency to a Comprehensive, AI-Powered Ecosystem

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Advantage of a custom headless portal

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Architectural advantage

The front end connects via API to the back end and to any database (e.g., Dataverse / Oracle).

- **Agnostic and decoupled**
- **Custom Frontend**
- **Low Code Backend**
- **Data neutrality**

This meets the critical requirement to keep regional data on non-proprietary platforms, avoiding vendor lock-in.

Strategic advantage

Custom frontend focuses on creating a familiar and intuitive User Experience by building a library of pre-approved components across all future services.

- **Standardized Design System**
- **Coherent and familiar user experience**
- **Build once, deploy many**
- **Accessibility 'By Design'**

Economic advantage

Market solutions often impose per-user (citizen/business) licensing fees. This creates an **unsustainable OPEX model** for a public-facing unified portal.

A custom front end:

- **Removes per-user cost barrier**
- **Secures long-term financial sustainability**
- **Achieves viability unlinking costs from user growth**



Conclusions

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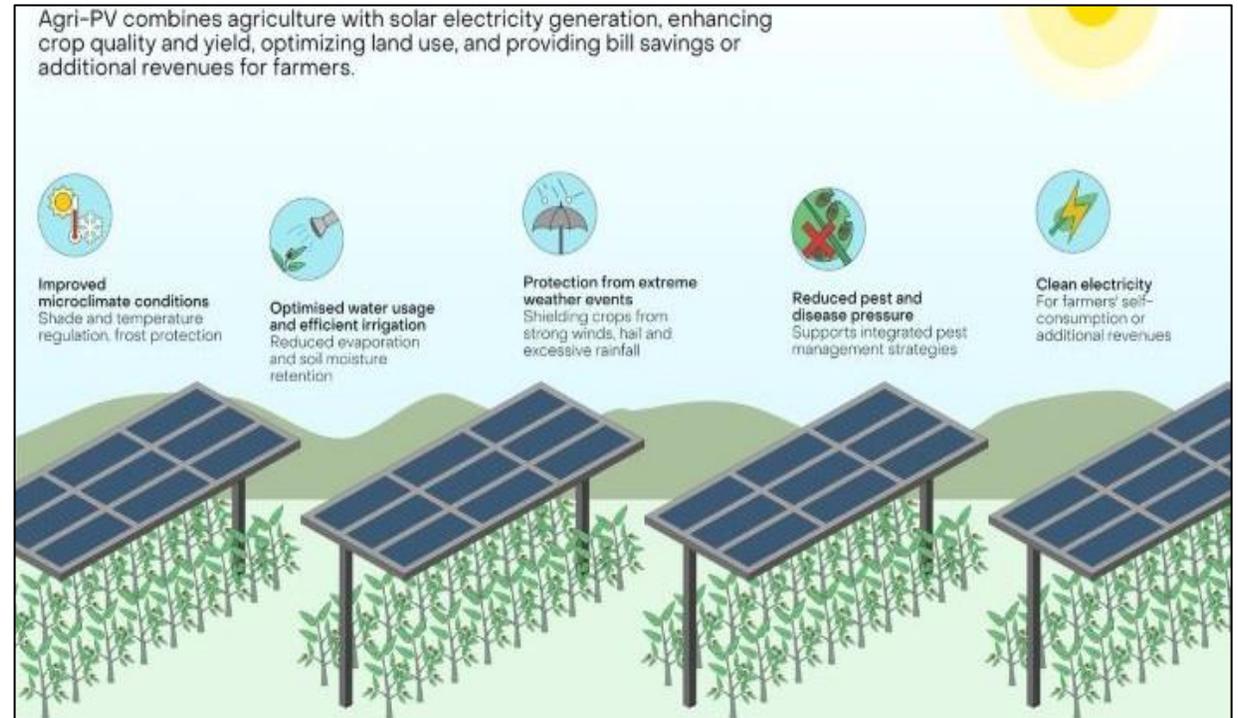
- ✓ Well-managed **agrivoltaic systems could be an effective tool for the energy transition**
- ✓ **it is essential** to implement restrictive rules that "defend" the primary role of agricultural production, in order **to achieve a suitable combination of development of renewable energy with the preservation and protection of that fundamental resource** – typically vulnerable, limited, and non-renewable – consisting of agricultural land and the agro-food excellence characterizing the Emilia-Romagna Region
- ✓ **The GILDA System is a way to optimize and automate the administrative authorization process** through the use of low-code platform and the integration of AI tools
- ✓ Benefits and advantages in terms of **reduction of time and resources efforts, effectiveness and efficacy** of the output are **immediately measurable**
- ✓ Possibility of future innovative developments in terms of scalability of the solution and applicability to other different contexts and administrative processes
- ✓ Artificial intelligence as a **facilitator** of the **energy transition**

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“A grapefruit is a lemon that was given a chance and took it.”

Oscar Wilde





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Thank you!

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