

AlfaBox

A multi-tenant **50k-user PowerServer**
success story for HR and performance
management in the Italian Healthcare

Berlin 29.04.2025
Meoni Marco, Appeon MVP



Profile



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Appeon MVP



meonimarco

Recent Projects

- PowerServer addict
- Training in Appeon products
- WebApp driven by .NET Datastore
- Maintenance of legacy PB apps
- Consultant for Appeon, Novalys, SPI, Power People-IT...

Key Skills

- PowerBuilder
- PowerServer
- SnapDevelop
- .NET DataStore
- SnapObject ORM
- Vue.JS
- Big Data
- Machine Learning

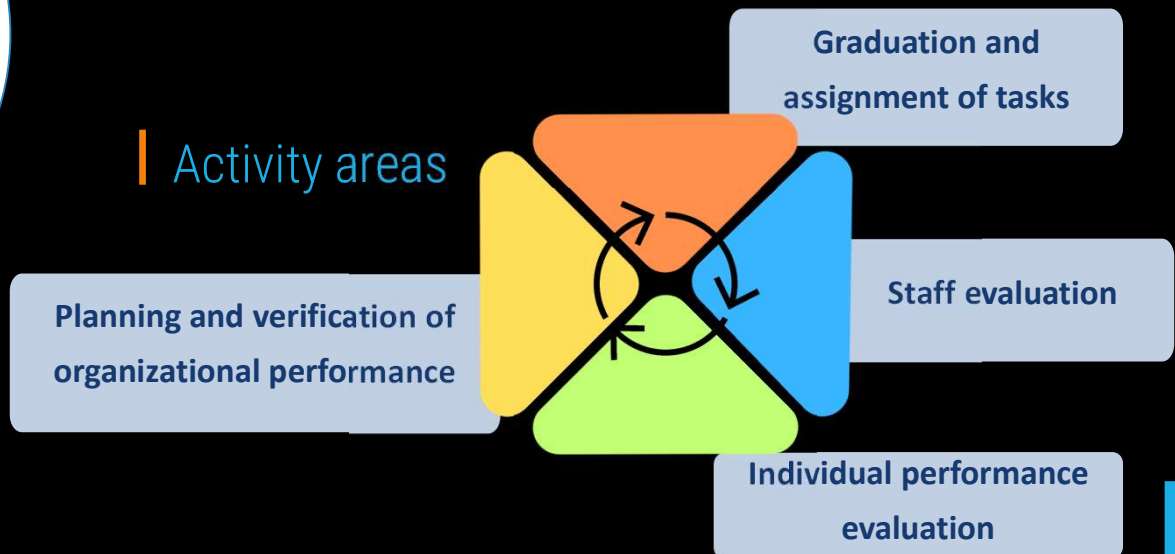
HMS Consulting



About

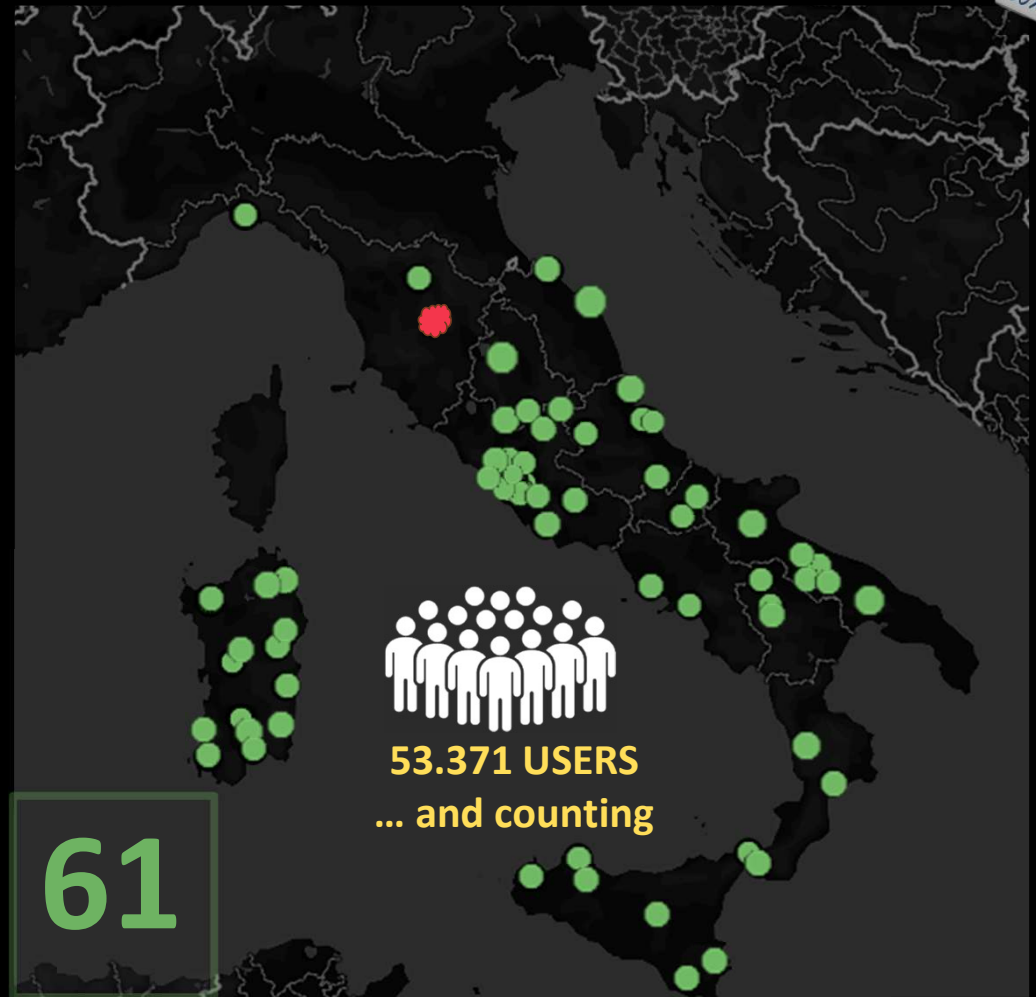
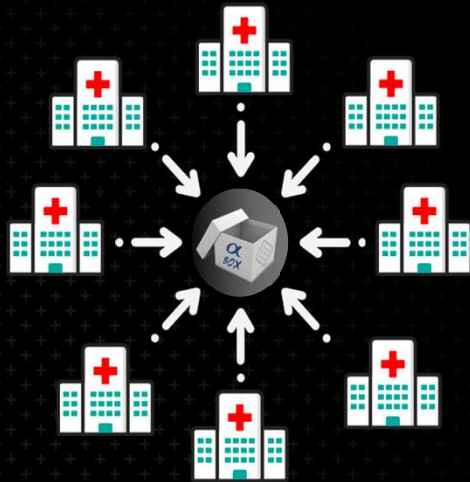
- Located in Florence, Italy
- Public Healthcare Domain
- Management Consulting and Training

Activity areas



AlfaBox

- ▶ Integrated solution for HR management and performance of the national **Healthcare** budgeting and process optimization
- ▶ **Web** and **Cloud** architecture
- ▶ Used at 61 administrations, hospitals and institutes in the **public healthcare**



Key Functionality

Organizational Performance

- Management of resources assigned to BU
- Strategy, operational goals and KPI
- Budget plans
- KPI monitoring and verification
- Dashboard Directive Conseil

Individual Score

- Programming and control of individual scores
- Parameters of personnel incentives
- Calculation of individual allowance and awards

Personnel Evaluation

- Personnel responsibility
- Professional evaluation of responsibility
- Outcomes from employees' career
- Dashboard HR

Career Path Selections

- Parameters for personnel selection in career paths
- Career path request forms
- Standing charts

Private Practice Management

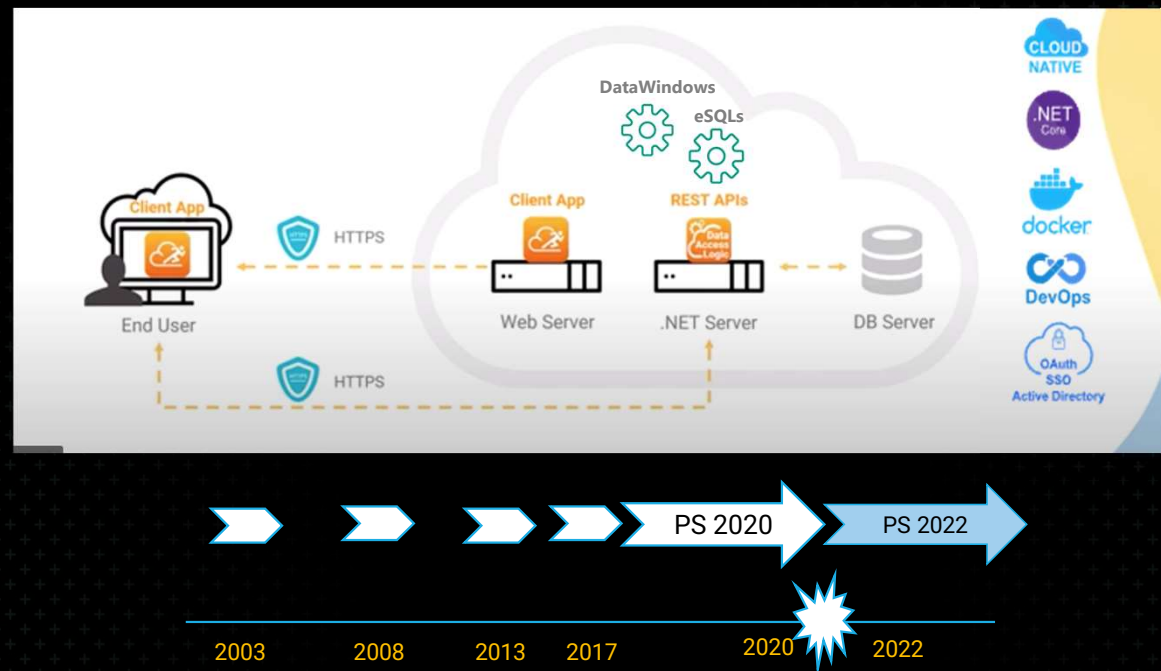
- Deployable company resources
- Medical agenda
- Private practice authorization
- Private practice management
- Accounting and Invoicing

Key Metrics

Customers	61
Employees per Institute	800 to 6,000 each
Annual Individual Profiles	~265,000
Annual Individual Scores	~2,380,000
Annual Mail notifications	~240,000
Annual Budget per Institute	1M to 10M Euro
Users	53,371
Concurrent	Up to 1000
Automation	95%
Reduction of dedicated personnel	70%
Reduction of process management time	80%

Dev Framework

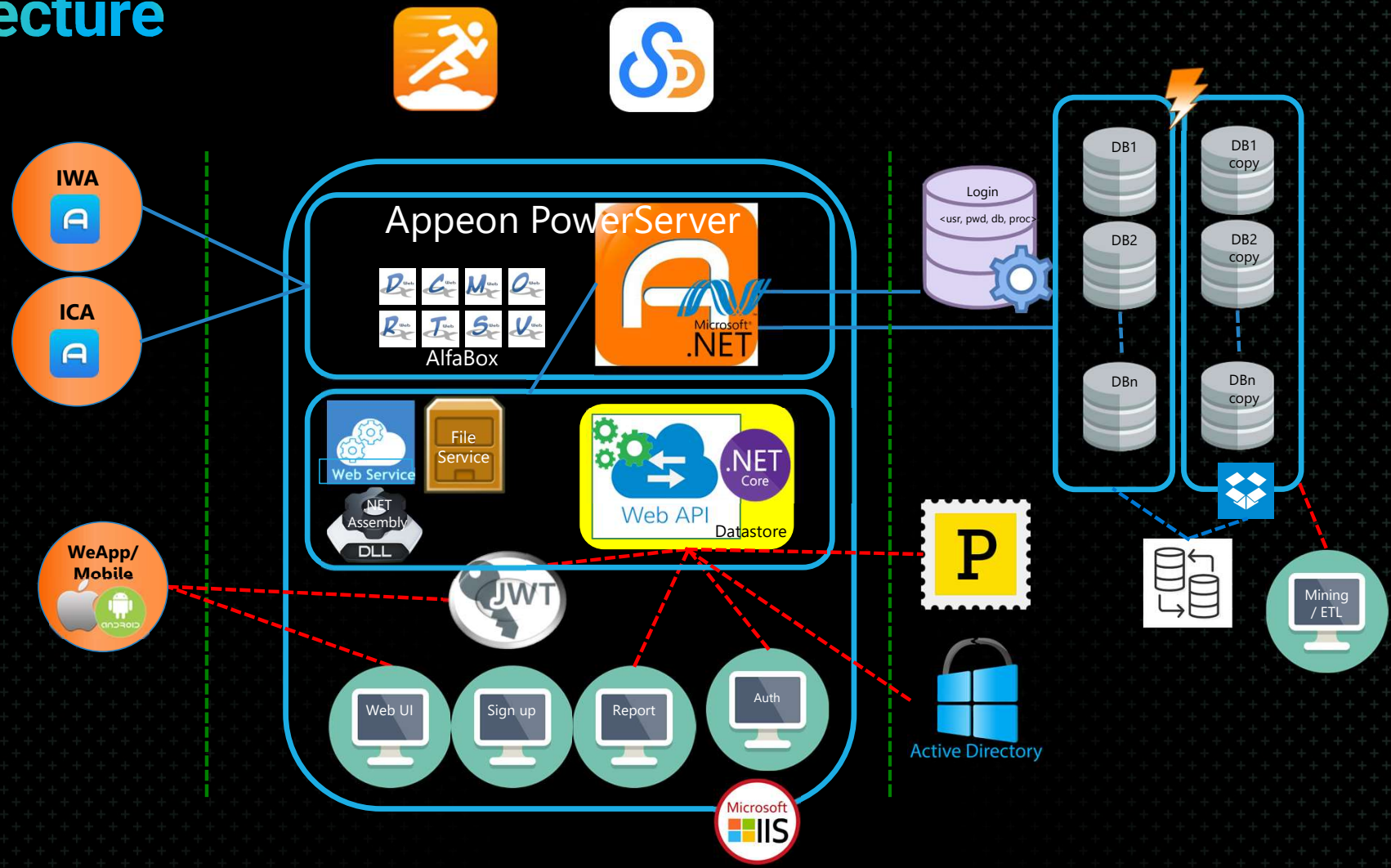
- Appeon PowerServer
 - Convert c/s projects into modern Installable Cloud Apps (ICA)
 - Formerly Installable Web App (IWA)



Why PowerServer?

- Brand new project started in 2011
- Limited budget and human resources
 - Consultancy in domain not supported by specialized software
- Fast development/deployment curve
 - *A-priori* 3-tier programming best practice instead of *a-posteriori* performance tuning or re-engineering
 - Unbeatable productivity (1 day/week dev work)

Architecture



Server Farm

- ☐ High-end Server sizing (memory, cores) based on load peaks
- ☐ Up to 1000 users simultaneously (400 IWA, 600 ICA)
- ☐ 1GB/s symmetric connectivity

Base speed:	2.10 GHz
Sockets:	2
Cores:	16
Logical processors:	32
Virtualization:	Enabled
L1 cache:	1.0 MB
L2 cache:	16.0 MB
L3 cache:	22.0 MB

View basic information about your computer

Windows edition

Windows Server 2019 Standard

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System

Processor: Intel(R) Xeon(R) Silver 4110 CPU @ 2.10GHz 2.10 GHz (2 pr

Installed memory (RAM): 32.0 GB (31.6 GB usable)

System type: 64-bit Operating System, x64-based processor

DOWNLOAD Mbps

945.29

UPLOAD Mbps

948.26

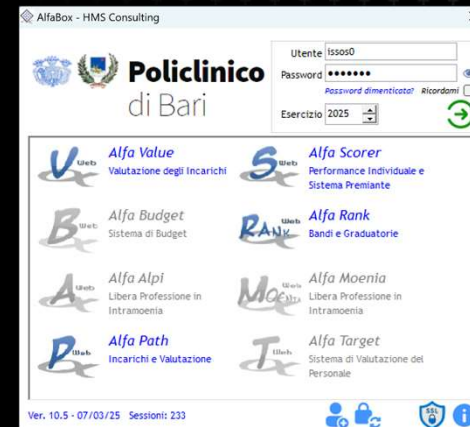
Ping ms 1

12 61

Connections

Service Model

- ☐ SaaS w/ modular License
- ☐ Multi-Tenant Application
- ☐ Daily DB backup with 1' restore times
- ☐ All customers use same App+DB version



Outfit Speed

☐ Trunk vs Tag

▶ **Trunk** is updated continuously upon implementing Jira requests

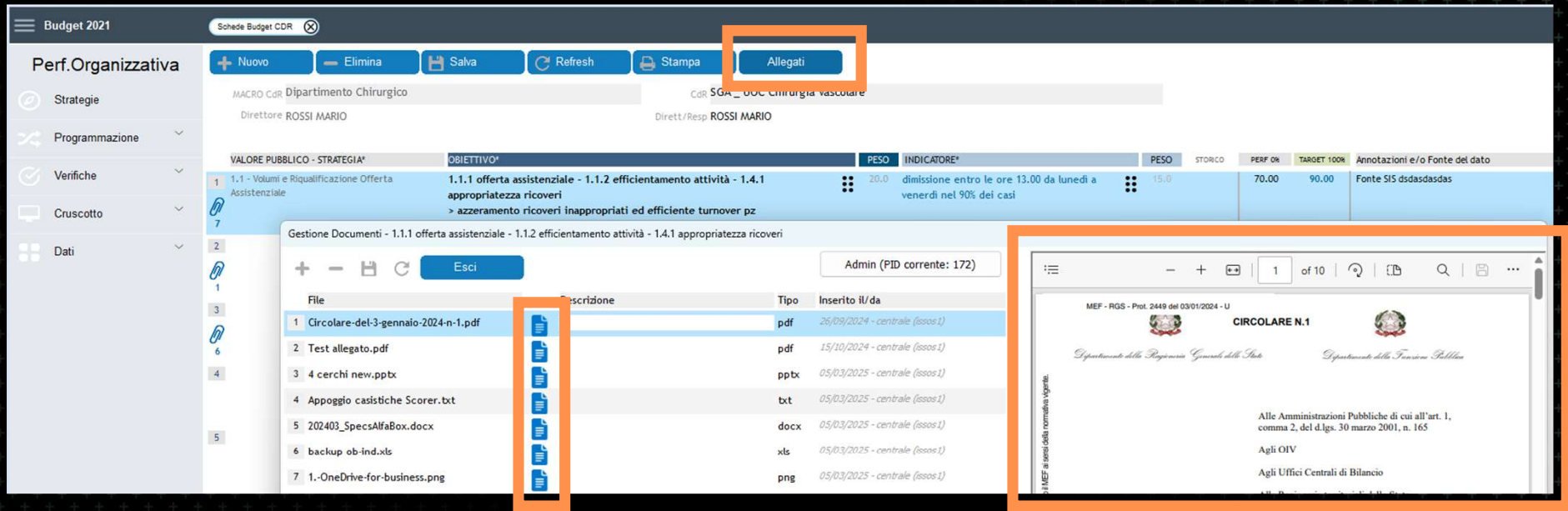
▶ **Tag** is the one - and only one - production version. Release on average each month

▶ **Hotfix** can be released at any time. PS IWA deploy (then) and **PBAutobuild** (now)



Interoperability

1 Document Repository: upload, download and preview features



The screenshot displays a document management system interface. On the left, a sidebar shows navigation options: Strategie, Programmazione, Verifiche, Cruscotto, and Dati. The main area is titled 'Perf. Organizzativa' and contains a table of documents. The table has columns for VALORE PUBBLICO - STRATEGIA*, OBBIETTIVO*, PESO, INDICATORE*, PESO, STORICO, PERF OR, TARGET 100%, and Annotazioni e/o Fonte del dato. A modal window titled 'Gestione Documenti - 1.1.1 offerta assistenziale - 1.1.2 efficientamento attività - 1.4.1 appropriatezza ricoveri' is open, showing a list of files with columns for File, Descrizione, Tipo, and Inserito il/da. A preview of a document is shown on the right, titled 'CIRCOLARE N.1' and dated 03/01/2024.

Document Repository Table:

VALORE PUBBLICO - STRATEGIA*	OBBIETTIVO*	PESO	INDICATORE*	PESO	STORICO	PERF OR	TARGET 100%	Annotazioni e/o Fonte del dato
1.1 - Volumi e Riqualificazione Offerta Assistenziale	1.1.1 offerta assistenziale - 1.1.2 efficientamento attività - 1.4.1 appropriatezza ricoveri > azzeramento ricoveri inappropriati ed efficiente turnover pz	20.0	dimissione entro le ore 13.00 da lunedì a venerdì nel 90% dei casi	15.0		70.00	90.00	Fonte SIS dsdasdas

Document Management Modal:

File	Descrizione	Tipo	Inserito il/da
1. Circolare-det-3-gennaio-2024-n-1.pdf		pdf	26/09/2024 - centrale (ssos1)
2. Test allegato.pdf		pdf	15/10/2024 - centrale (ssos1)
3. 4 cerchi new.pptx		pptx	05/03/2025 - centrale (ssos1)
4. Appoggio casistiche Scorer.txt		txt	05/03/2025 - centrale (ssos1)
5. 202403_SpecsAlfaBox.docx		docx	05/03/2025 - centrale (ssos1)
6. backup ob-ind.xls		xls	05/03/2025 - centrale (ssos1)
7. 1-OneDrive-for-business.png		png	05/03/2025 - centrale (ssos1)

Document Preview:

MEF - RGS - Prot. 2449 del 03/01/2024 - U

CIRCOLARE N.1

Dipartimento della Ragioneria Generale dello Stato

Dipartimento della Funzione Pubblica

Alle Amministrazioni Pubbliche di cui all'art. 1, comma 2, del d.lgs. 30 marzo 2001, n. 165

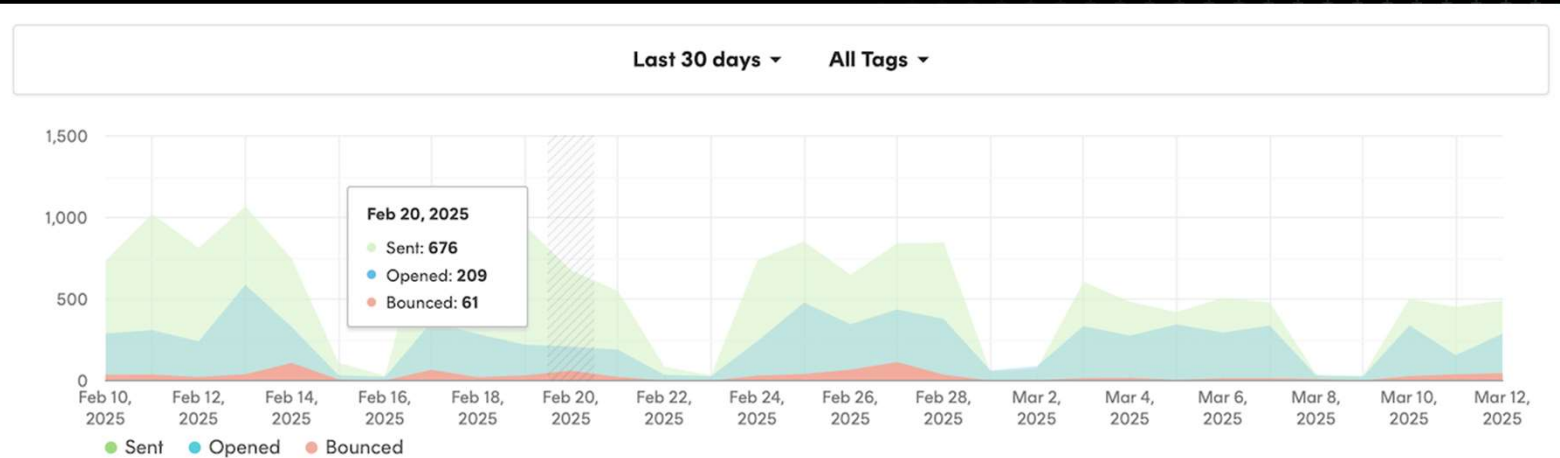
Agli OIV

Agli Uffici Centrali di Bilancio

Interoperability

2

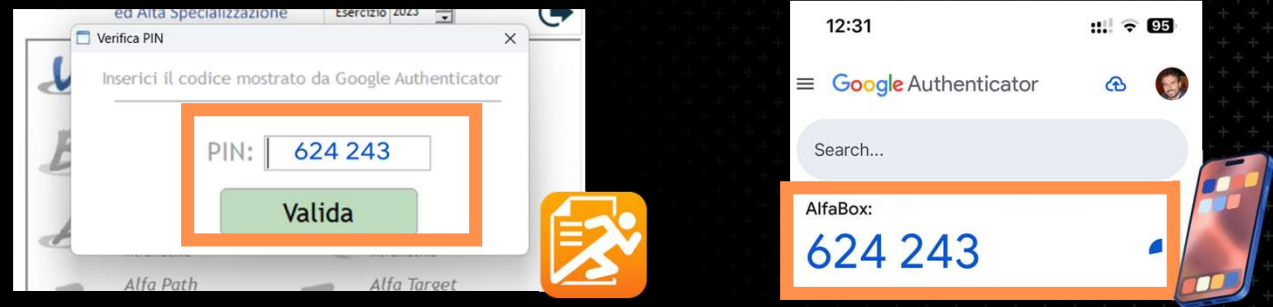
Mailing: signup, I forgot, password reset + strategic task-completed steps among personnel



You sent 16,714 emails in the last 30 days, 5.7% bounced.
Out of 16,714 emails with open tracking, 45.5% were opened.
Out of 6,437 tracked links, 67.6% were clicked.

Interoperability

3 2FA: Two-factor access authentication (GDPR 2016/679 regulation for data protection)



4 3rd-party Integration: exchange evaluation cards, patient invoices, medical records via REST API



5 LDAP: on-demand integration with corporate Active Directories for identity and permission management according to customer policies

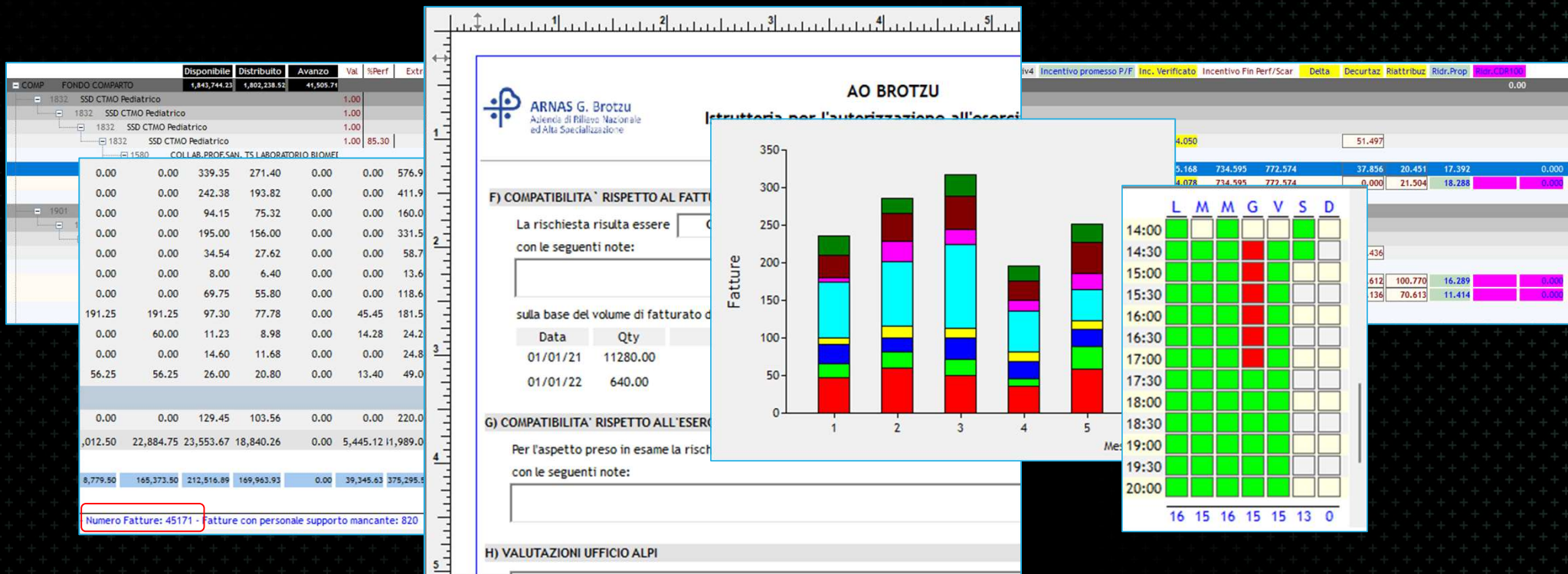


Customer perspective

-  **1** **Flexibility:** easy to customize in relation to specific customer needs
-  **2** **Highest ROI:** small skilled team of 9 people
-  **3** **Scalability:** increasing workloads maintaining performance, responsiveness
-  **4** **Interoperability:** ability to integrate with other systems
-  **5** **Efficiency:** easy integration of new customers in short time
-  **6** **Intuitiveness:** good user experience for all levels of users

DataWindow, what else?

► Real time processing of thousands of employees' work performance and incentives distribution



User Experience

The screenshot displays a web application interface for budget management. The interface is divided into several sections, with red boxes highlighting specific UI elements for user experience analysis.

Annotations:

- Hamburger menu:** Located in the top left corner, labeled "Budget 2021".
- Action bar:** A horizontal bar at the top containing tabs for "Schede Budget CdR", "Relazioni CdR", and "Report Schede CdR".
- Chips:** A row of action buttons: "Nuovo", "Elimina", "Salva", "Refresh", "Stampa", and "Allegati".
- Mousehover:** A search bar in the top right corner with the text "Incremento".
- Search/filter box:** A search bar in the bottom right corner with the text "Vascolari".

Main Content Area:

The main content area displays a table of budget data. The table has columns for "VALORE PUBBLICO - STRATEGIA*", "OBIETTIVO*", "PESO", "INDICATORE*", "PESO", "STORICO", "PERF. OR", "TARGET 100%", and "Annotazioni e/o Fonte del dato".

VALORE PUBBLICO - STRATEGIA*	OBIETTIVO*	PESO	INDICATORE*	PESO	STORICO	PERF. OR	TARGET 100%	Annotazioni e/o Fonte del dato
1	Implementazione politiche della qualità	25,0	% personale formato / target	40,0	...	60,00	100,00	
2			% personale valutato nei tempi previsti	40,0	...	80,00	100,00	
3			rilevazione fabbisogni formativi: SI/NO	20,0	1	0,00	1,00	
4	Consolidamento volumi specialistici 2021		Consolidamento prestazioni ambulatoriali rispetto al precedente esercizio					
5	Consolidamento volumi specialistici 2021		Incremento interventi chirurgici correttivi					
6	Consolidamento volumi specialistici 2021		Incremento prestazioni in DH / DS					
7								

Footer:

Numero obiettivi: 9
VERBALE NEGOZIAZIONE:
Le prestazioni in DH sono subordinate alla disponibilità del personale infermieristico specializzato in ambito oftalmologico.
NEGOZIAZIONE SCHEDA IN DATA 05/03/2021 PRESA D'ATTO DELLA DIREZIONE AZIENDALE PRESA D'ATTO DEL DIRETTORE/RESP. CdR



Demo

Summary

- AlfaBox is 14 year old multi-tenant PS app
- 60+ healthcare institutions, 50k+ users, up to 1k concurrent sessions
- Migration from IWA to ICA
 - State-of-the-art and scalable architecture (microservices, webdeploy, ...)
 - Extendable API-driven PS backend (UserExtensions, .NET datastore, ...)
 - Can use PB features introduced over the last 3 years
 - No unsupported features
 - A PS debugger integrated and... working!
 - Appeon today (SD, .NET, REST API, ORM C#, PS,...): revolution of traditional PB programming with datastore-powered backend for webapp/mobile dev stacks
 - Improved self-confidence



「Thank You」