Swiss Federal Railways SBB

Martin Zandegiacomo
Tech. Consultant Office 365

Swiss Federal Railways SBB.

We are shaping the mobility of the future.

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We move Switzerland – every day.

Passenger Division
1 250 000 pass. per day

Real estate
3 500 Buildings

SBB Cargo
210 000 t of freight per day

Information Technology

Infrastructure
3 230 km of rail network
10608 trains on the network per day

With 32,300 employees from 98 countries in 150 different occupations, SBB is one of Switzerland's largest employers.

These are our challenges.

Customer requirements and mobility patterns are undergoing a transformation.

Competition from other forms of transport is increasing, due not least to increased transparency.

Whilst rail operators are facing rising **overall costs**, other carriers can potentially cut theirs by half.

New technologies are accelerating developments (safety, capacity, flexibility, environmental sustainability).

Coordinated planning of road/rail capacity is required.

Regulatory and **spatial planning requirements** are intensifying.

Public funds are growing scarcer.

About the Speaker & Team.

Martin Zandegiacomo
Technical Consultant Office 365

- → With SBB for 4+ years
- → Started with PowerApps in March 2018
- → In IT since 2009
- → Coming from a system engineering path, not a software developer

Rapid Solution Unit

- → Providing fast, reliable and economic software solutions for our internal customers

- → 26 Engineers
  - ▪ 2 Engineers for PowerApps, Flow and Power BI

- → Technologies provided
  - ▪ MS PowerApps, Flow, Power BI, SharePoint Online, Azure
  - ▪ MS Access, .NET, VBA
  - ▪ Lotus Domino, Java Web, Opentext DMS

PowerApps journey: from forms to apps.

Project «Form Migration»: Challenges.

Migrating 300 forms from 'on premise' to the cloud in order to be used in our award-winning intranet posed different challenges.

Time

Three Languages

Consolidation
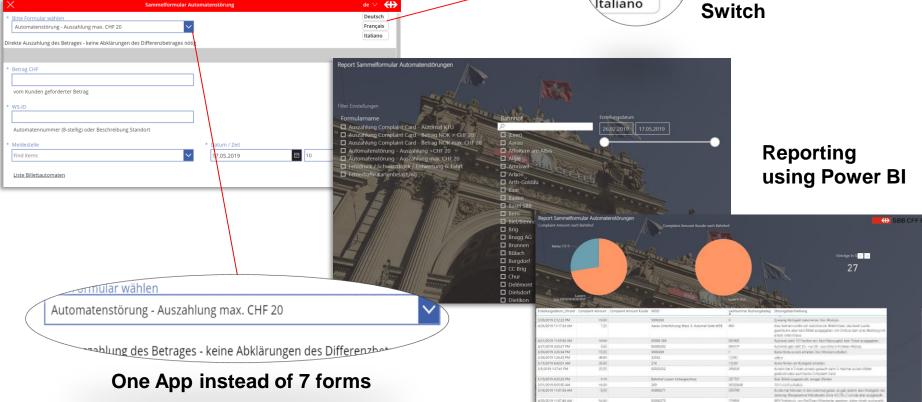
Send Mails with Attachments

Overtime Reporting App.

→ Overtime reporting for train crews

→ 90% mobile users

→ Used 4500+ times since January

→ Used by 2200+ Users

Adding value to the forms.

Language Switch

- Deutsch
- Français
- Italiano

Reporting using Power BI

One App instead of 7 forms

Architecture.

- R/W data from SPO lists
- Read translations from SPO list for multi-language support
- Used on mobile & desktop devices

- Flows connected SharePoint
- Sends emails to the responsible Business Unit or System

- Power BI reports connected to SPO lists
- Show a summary of the data collected

180+ PowerApps   Supporting flows   Power BI reports

Gateways and connectors

SharePoint Online is used to store data of the Form

Project «Form Migration»: Timeline.

→ **300 forms** migrated into **170 Apps**

→ Time used: **7 months**

May 2019
180+ apps in production

January 2019
220 forms to 165 apps
2 Engineers, 1 PM

October 2018
120 forms to 70 apps
8 Engineers, 1 PM

July 2018
Started with 300 forms
1 Engineer, 1 PM

Project «Form Migration»: Process established.

Initialization
- Check business needs
- Add form owner
- Ensure financing
- expenditure estimate

Architecture
- Forms
- PowerApps
- SPFx Solution

Acceptance
- Form owner approval

Realisation
- Realisation on test environment
- Realisation on prod environment

Testing
- Form owner tests the form
- Embedding on intranet site

Business units supported.

HR

- Contract requests
- E-Dossier management
- Internal reporting system
- Expense application
- Change work-place
- +23 more

Passenger Div.

- Reporting overtime
- Ticket refunds
- Report maintenance tasks
- Vacation requests
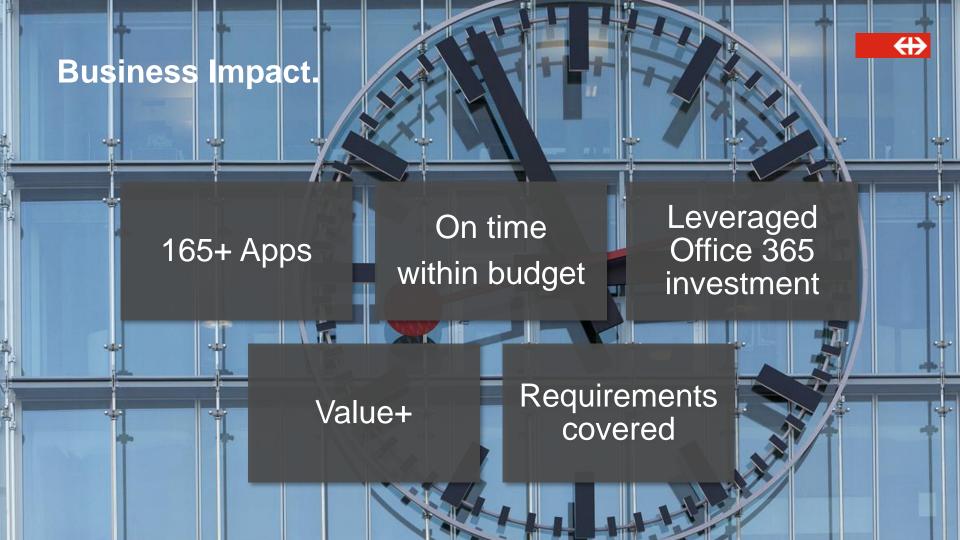- Catering order
- Business trip ordering
- ~ 50 more

Finance

- Request a credit check
- Submit project completion
- Request financial competence adjustments
- change master data request
- +5 more

Cargo Division

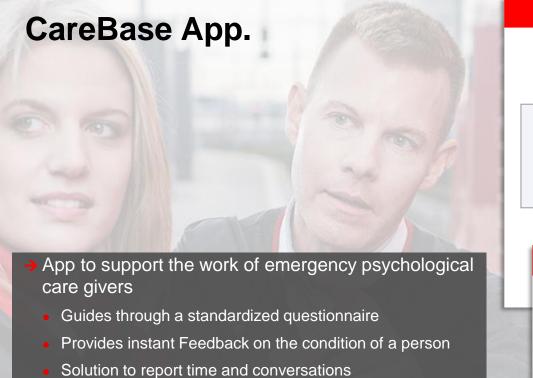- Locomotive request
- Report delays
- Oil train customer notifications
- Sick leave reporting
- Document change request
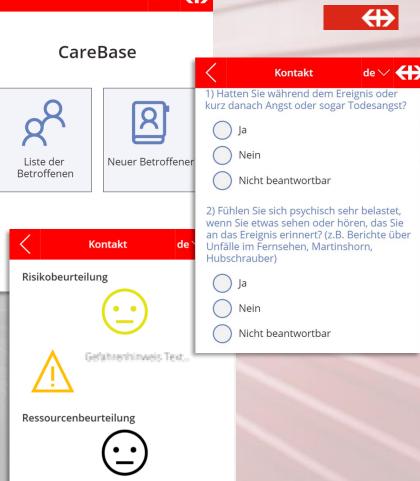- Locomotive fault report
- + 34 more

Business Impact.

165+ Apps

On time within budget

Leveraged Office 365 investment

Value+

Requirements covered

Going beyond forms: CareBase app.

CareBase App.

- → App to support the work of emergency psychological care givers
  - • Guides through a standardized questionnaire
  - • Provides instant Feedback on the condition of a person
  - • Solution to report time and conversations
- → 100% Mobile Users, rolled out in January
- → Used by 60+ Users
- → Replaces a paper and Excel based solution
- → Will be enhanced with Power BI reports

Learnings and looking ahead.

Learnings.

- Challenge the business
- Onboard the business
- Check limitations
- Start with a Plan
- Make use of MS support
- SharePoint online dependencies

Looking ahead.

Center of Competence

- Support Business Users
- Trainings
- Community

Operation

- Validate Platform Setup
- App Gouvernance
- App Maintenance

Projects

- New Requests
- Further Development
- Form consolidation continued

Thank you for your attention.

SBB CFF FFS