

**Head of IT Infrastructure and  
Operations / Airbus**

Peter Schoonjans

## **Airbus IT Infrastructure goes Open (Source)**

October, 2016



# AIRBUS IS A GLOBAL AIRCRAFT MANUFACTURER



**55,000**

Employees

**€40billion**

Annual revenue\*

**9yrs**

Backlog

**400**

Operators

Data to end 2014  
\*Annual Revenue 2013

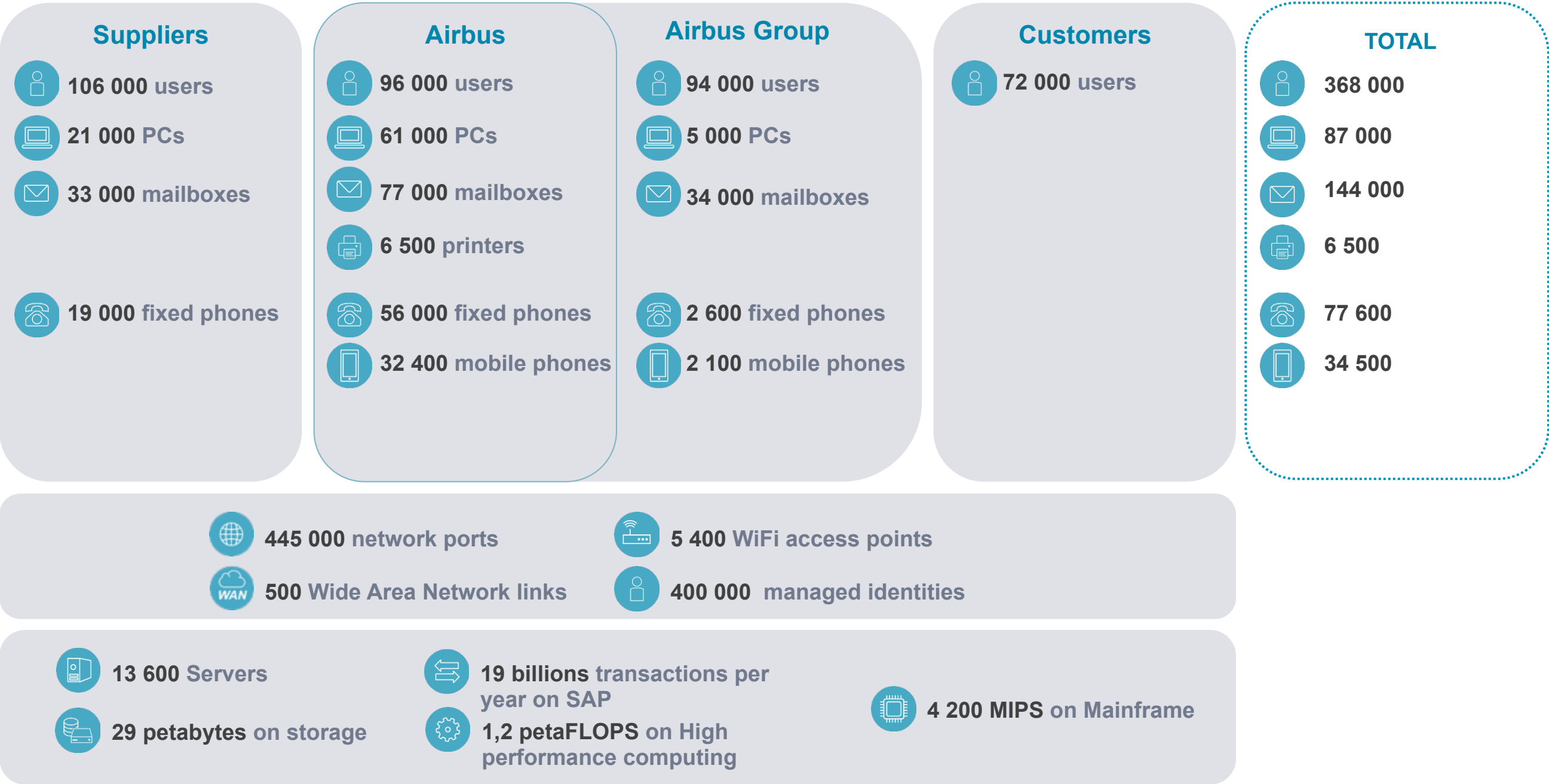
**and most preferred employer!**

*(references: Le Figaro, Randstad, Focus, Hamburg aviation...)*

## Passion

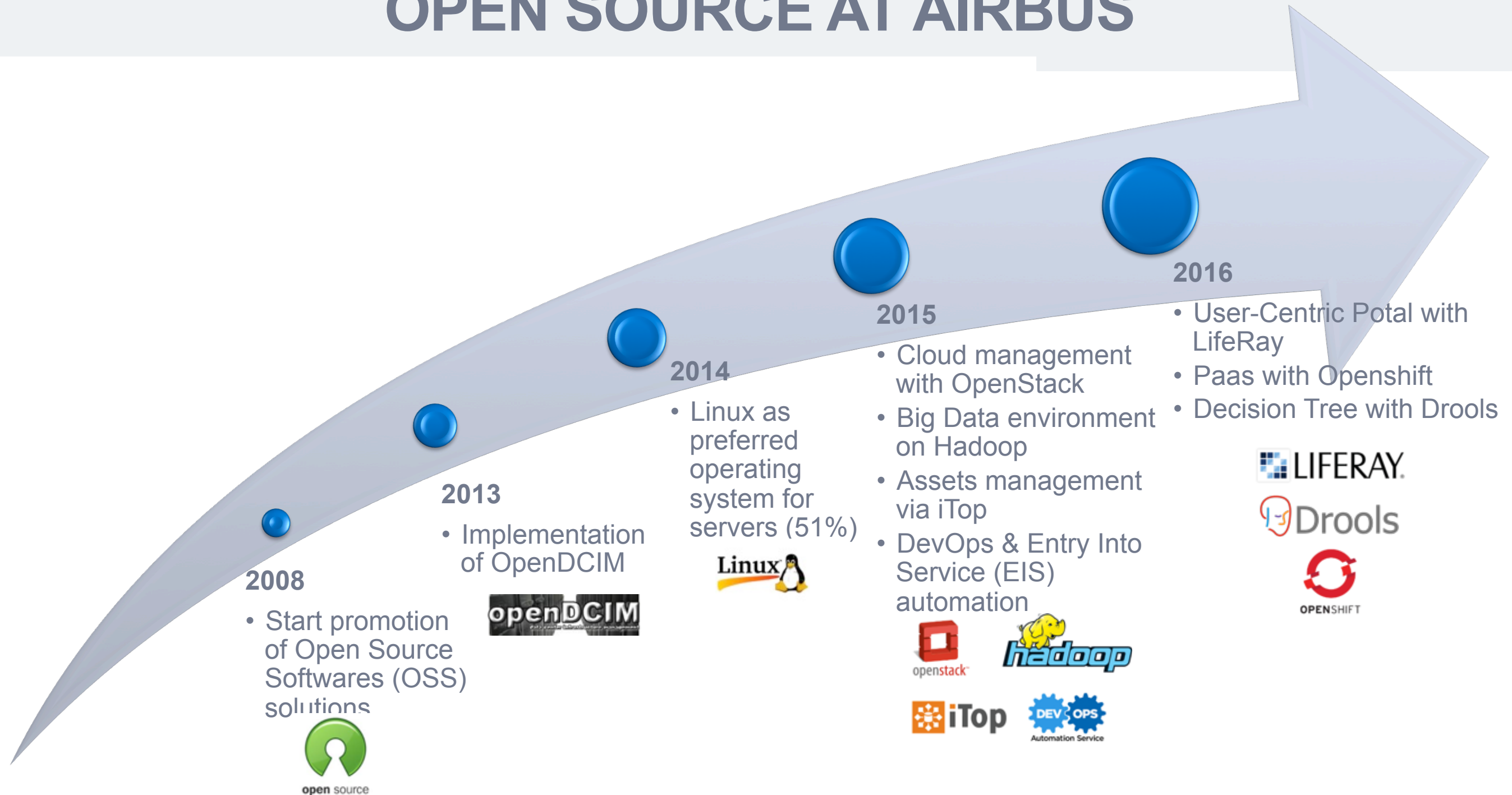
Our global workforce is united by a passion for aviation and restless desire to create better ways to fly

# AIRBUS IT INFRASTRUCTURE FIGURES



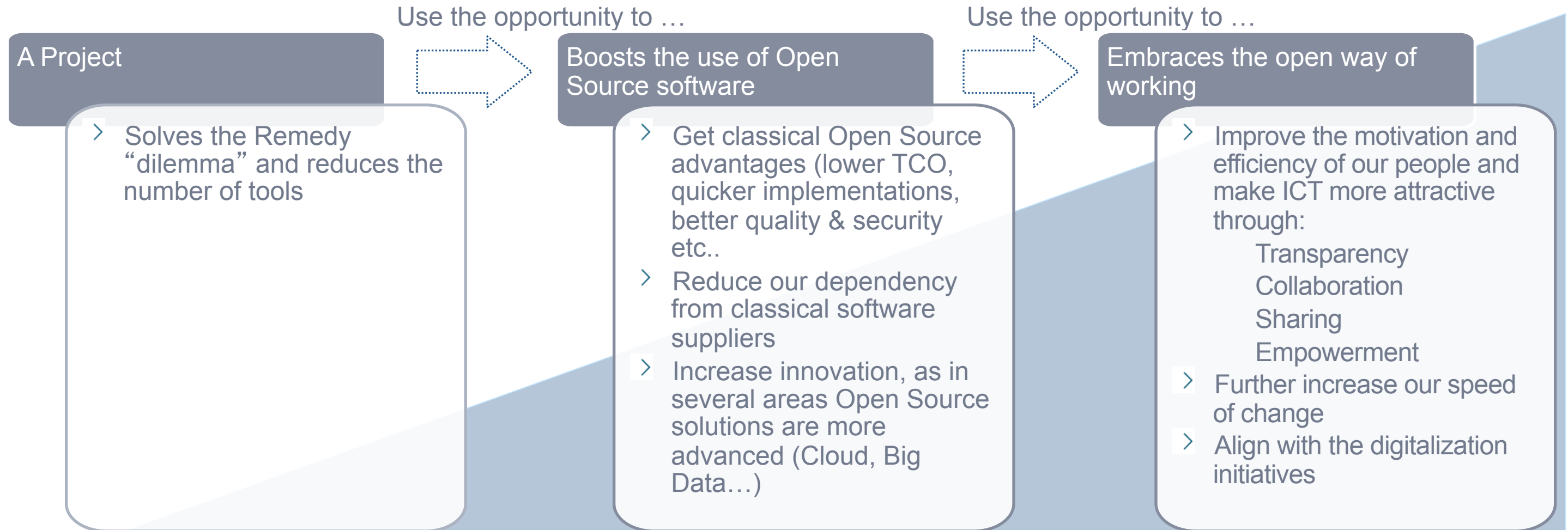


# OPEN SOURCE AT AIRBUS



# AN INTEGRATED IT SERVICE MANAGEMENT TOOL (ITSM)

## Drivers for the “Open Source” model



**Speed up & Reduce blocking supplier dependencies!**

# OPEN WAY OF WORKING

# OUR OPEN WAY OF WORKING

## TRANSPARENCY

Gain the trust of our stakeholders and to eliminate hidden waste.

## EMPOWERMENT

Reduce control, speed up and increase motivation through empowerment made possible by a clear and inspiring high level direction and the combination of trust and accountability.

## COLLABORATION

Replace the silo culture by working in communities across departments. We eliminate the Silo root cause by a customer satisfaction approach.

## SHARING

with internal and external communities to capture synergies.



The “Open” Way of Working fits perfectly the ambitions of the Airbus Digital Transformation Program

(\*) Based on Don Tapscott's model of the “Open World”

# IT STARTUPS, THE FREEDOM TO WORK DIFFERENTLY

## PRINCIPLES

- › Voluntary basis & **independent** of line organization
- › Maximum freedom in the way of working for highest motivation, **faster and better result**
- › Maximum **empowerment** and **full accountability** (fail safe concept to limit risks)
- › Work in the team based on **natural leadership** with no hierarchy

Agility & Fast Delivery

Close to Customer

Efficiency

Open Way of Working

Open Source





# 3 IT STARTUPS INSIDE AIRBUS INFRASTRUCTURE

## OBJECTIVES

### IT Service Tools

Provide better integrated tooling to be more agile, deliver quicker, reduce project and recurring cost .

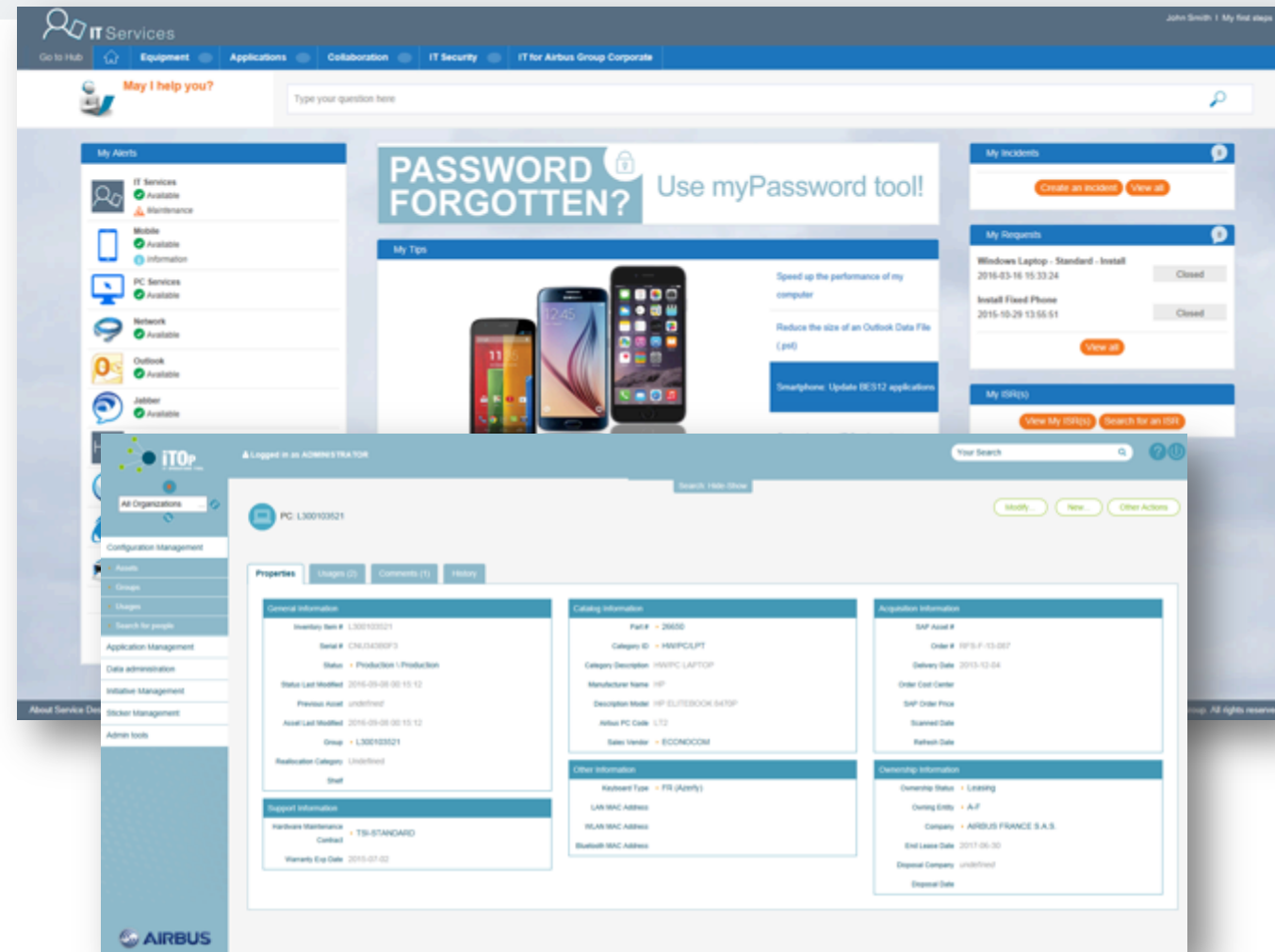
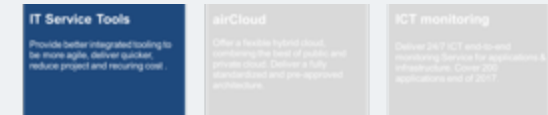
### airCloud

Offer a flexible hybrid cloud, combining the best of public and private cloud. Deliver a fully standardized and pre-approved architecture.

### ICT monitoring

Deliver 24/7 ICT end-to-end monitoring Service for applications & infrastructure. Cover 200 applications end of 2017.

# IT SERVICE TOOLS STARTUP



## MISSION

- › Provide a **User-Centric portal** with access to a **personalized IT Support**
- › Provide a single solution for the **management & automation** of IT Operations
- › Promote **Open Source Software & Open Way of Working**

**September 2015**  
IT Operations  
kick off

**December 2015**  
IT Operations  
delivered

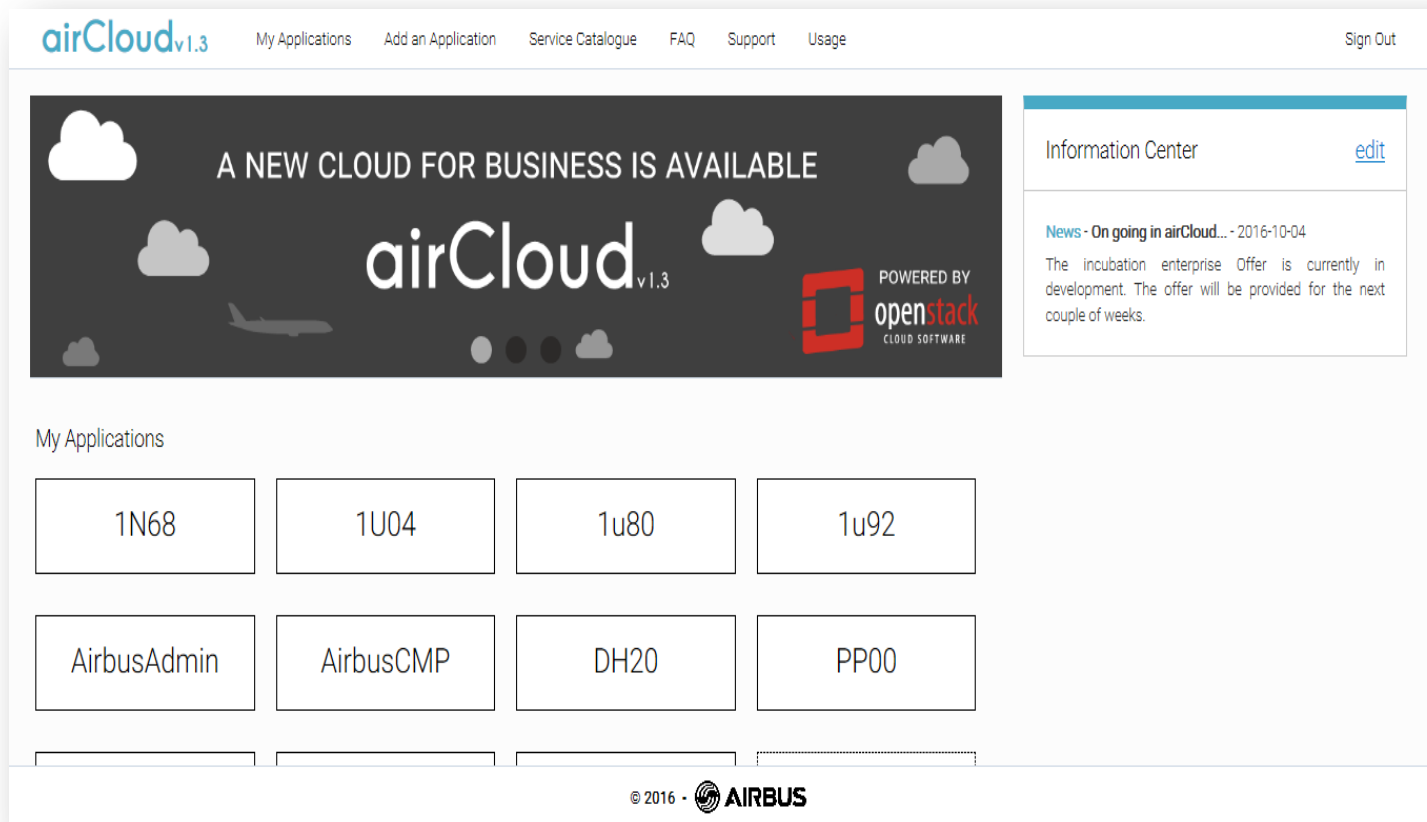
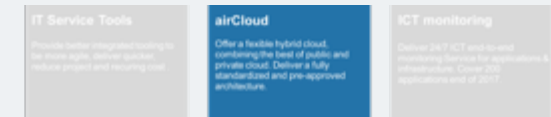
**January 2016**  
User-Centric portal  
kick off

**June 2016**  
User-Centric portal  
open to 100 000 users

New tools integration  
Towards Self-Service Store

*Continuous tuning & fortnightly release*

# airCloud STARTUP



## MISSION

- ›An Agile Ecosystem available as a self-service, **Every time, Everywhere, by Everyone and Everything**
- ›Provide **instantaneously** an adaptive IT **instance** for any actor and business
- ›Create an **Intelligent & Autonomous** Ecosystem able to be managed automatically reducing human interaction

**March 2016**  
Startup launch

**July 2016**  
airCloud service is open

**December 2016**  
Implement the final CMP

*Continuous tuning & fortnightly release*

# ICT MONITORING STARTUP

IT Service Tools

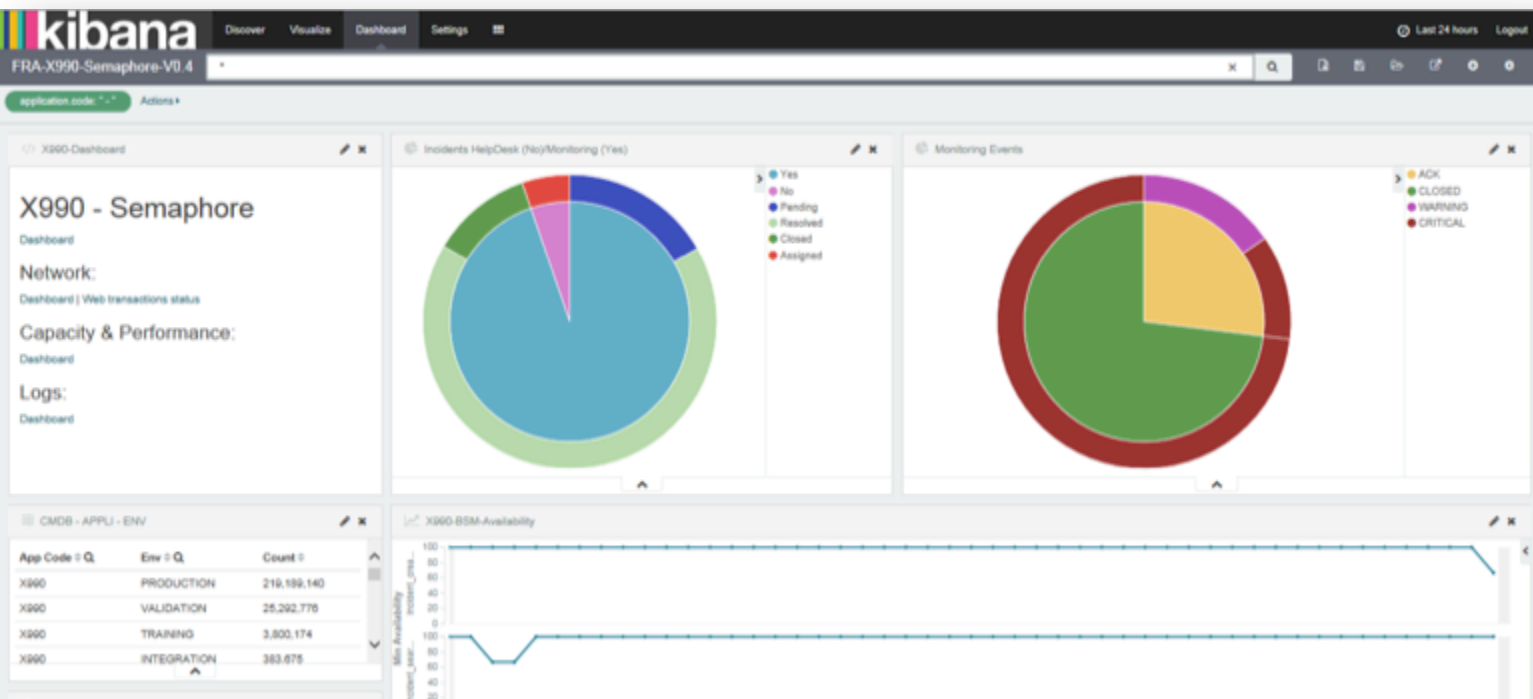
Provides further integrated tooling to be more agile, deliver quicker, reduce project and recurring cost.

airCloud

Offer a flexible hybrid cloud, combining the best of public and private cloud. Delivering fully managed cloud and pre-approved architecture.

ICT monitoring

Deliver 24/7 ICT end-to-end monitoring service for applications &amp; infrastructure. Cover 200 applications end of 2017.



## MISSION

- › Deliver **ICT E2E monitoring service** for critical applications and infrastructure for different Airbus divisions in order to reduce outage duration (alerting, escalation and chasing in H24 including communication)
- › End of 2016: **50 applications** by the end of 2016
- › End of 2017: more than **150 applications**

**March 2016**  
Startup launch

**August 2016**  
Global monitoring kick off

**September 2016**  
Global monitoring is open

Integrate new sources and  
new applications  
New monitoring solution

*Continuous tuning & fortnightly release*



# RED HAT AT AIRBUS

# OPENSIFT

## EXPECTATIONS

- › **Rapid** applications **development & deployment** in the **Cloud**
- › **Optimized** resources usage with better application **scaling**
- › Simplify the **retirement** of non Cloud based solution

## SOLUTION

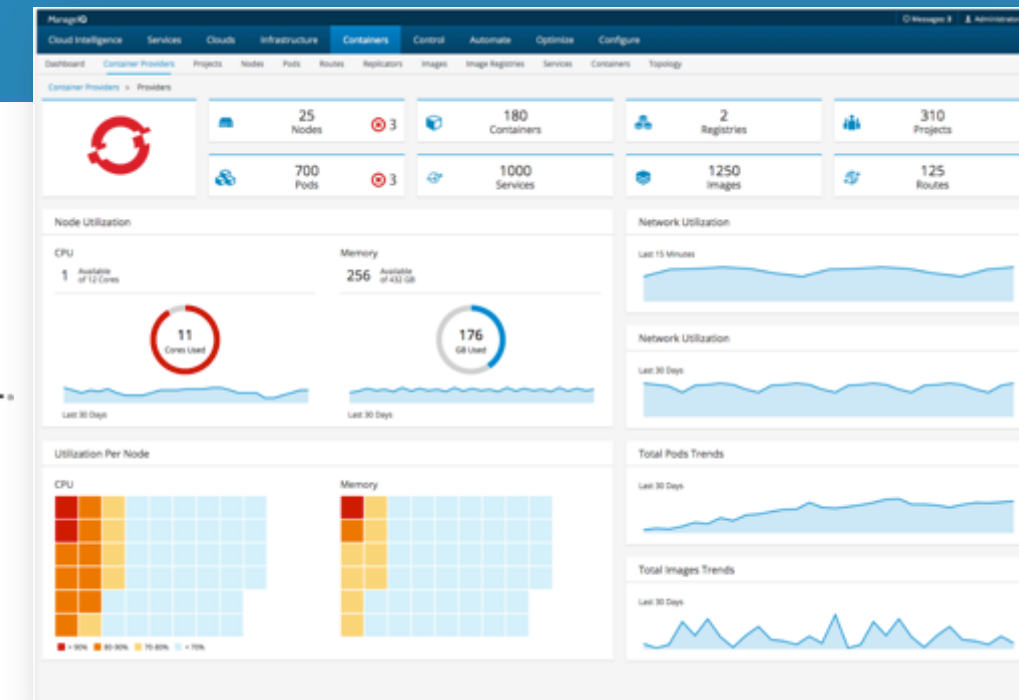
- › Based on the **container** technology to fully support multiple **languages, databases...**
- › Setup on **OpenShift 3** from **RedHat** composed by **Docker** containers & **Kubernetes** as container cluster manager



### Key Figures

> 150 PHP Applications

> 40 Ready to use containers



# BUSINESS RULES MANAGEMENT SYSTEM

## BRMS (Drools) EXPECTATIONS

- › **Decision Tree** on IT Support for end users
- › Provide end users the **right solution** (knowledge articles or incident template)
- › Create pre-diagnosed incident to **speed up the resolution**

### Key Figures

- › **100 000 End users**
- › **80 000 Incidents per month**
- › **900 Knowledge articles for end users**

### Key Facts

- › **Application automation deployment**
- › **Boost efficiency & quality**

## ANSIBLE PILOT EXPECTATIONS

- › **Industrialize** application deployments to **speed up** and **ease delivery**
- › **Bring automation** to recurring administration tasks
- › **Simplify** monitoring of scheduled jobs

# OUR VIEW ON SaaS



# SaaS IS IN TREND

SaaS adoption grew from 13 % in 2011 to over 74% adoption in 2015

## FACTORS OF SaaS

- › **Lower initial cost**
- › **Rapid prototyping**
- › **Easier & faster** to deploy
- › **Predictable costs** for the subscription & administration
- › **Scalability and integration**
- › **Operational Agility & Innovation**

The global SaaS market hit \$49 billion in 2015 – and will reach \$69 billion by 2018\*

servicenow



Google

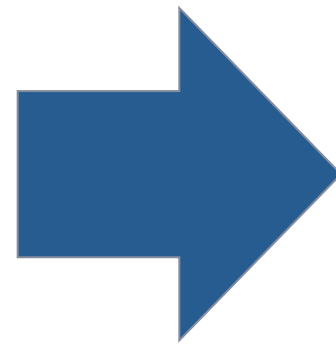
workday

(\*) Based on Research and Markets, Business Wire

# A SaaS ALTERNATIVE

## RISK FACTORS

- Vendor lock-in
- Data security concerns
- Integration costs
- Mid term high costs



## ALTERNATIVE

- Find advanced Open Source alternative & support
- Tailored to our business needs
- Better cost control
- No lock-in

servicenow

tuleap

iTop

LIFERAY



Linux

MySQL



elastic

# OUR AMBITION

# FITS TO THE AIRBUS “DIGITALIZATION AMBITION”

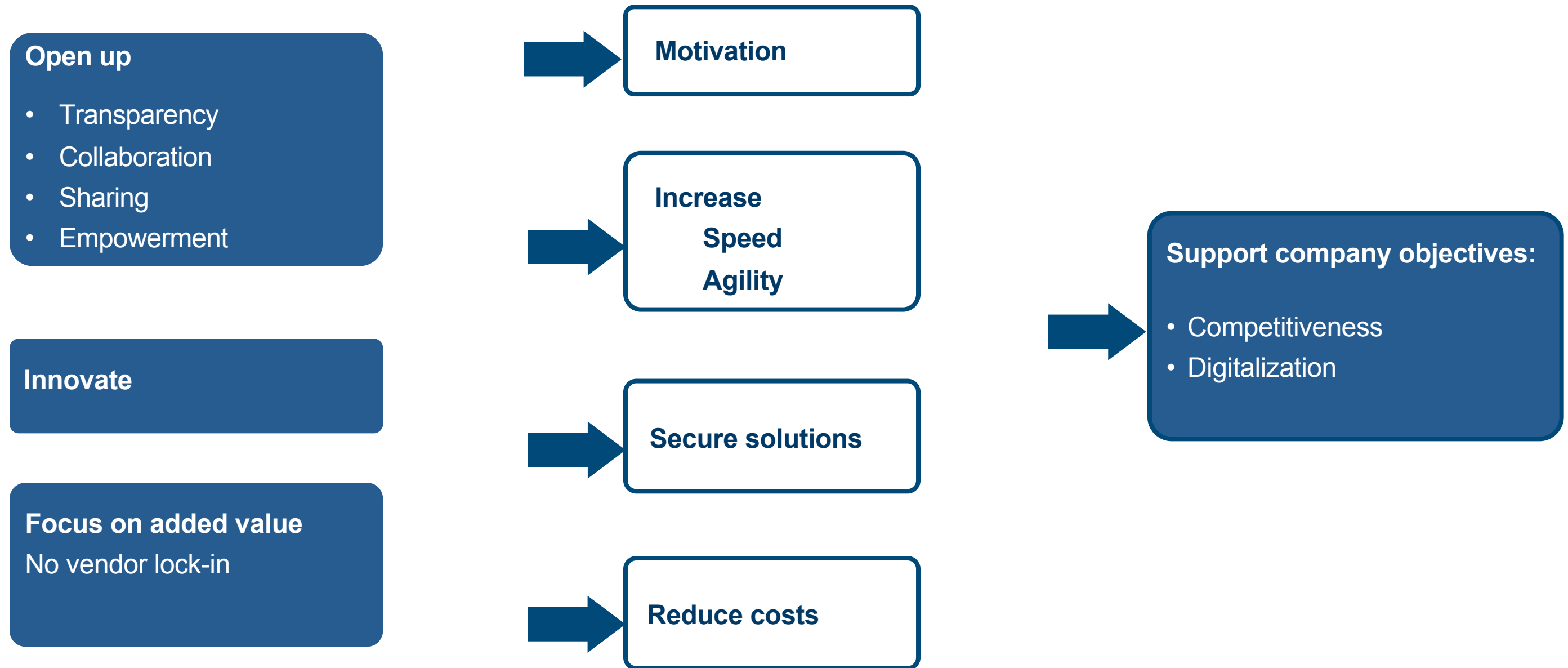
## What is the Digital Transformation Program Ambition?

- 1 **HIGH EMPLOYEE ENGAGEMENT** built around different ways of working, flatter organization and new leadership model
- 2 **DIGITAL OPERATIONAL EXCELLENCE** supported by lean operations and, as well as effective decision making processes
- 3 **TURNING PRODUCT DATA INTO INSIGHT** which is essential to create value around Product Support & Services and manage our portfolio towards our customer needs
- 4 **CAPTURING END CUSTOMER EXPERIENCE** (from end to end) is the Value Creator and the potential Market / Industry disruptor
- 5 **BUSINESS AGILITY** by introduction of the rapid digital development cycles within innovation process and development cycles





# OPEN SOURCE SOLUTIONS SUPPORT OUR AMBITION TO...



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**Peter SCHOONJANS**  
Head of IT Infrastructure and Operations at Airbus  
[peter.schoonjans@airbus.com](mailto:peter.schoonjans@airbus.com)

