PAC INNOVATION RADAR
ICT Supplier Assessment from PAC

PAC RADAR
IoT Platforms
in Europe 2017

IoT Platforms for:
IoT application developers
IoT device developers
IoT device managers
IoT device users
What is the PAC RADAR?

The PAC RADAR by Pierre Audoin Consultants (PAC) is an effective tool for the holistic evaluation and visual positioning of ICT services providers on local markets.

Numerous ICT and business decision makers in user companies of all industries and company sizes rely on the PAC RADAR when selecting their partners and developing their sourcing strategies.

With the help of pre-defined criteria, PAC evaluates and compares providers’ revenue scope, development and market position in addition to performance and competencies within specific market segments.

Each PAC RADAR focuses on a certain IT services segment. Up to 30 leading providers are evaluated per segment. Participation in the PAC RADAR is free of charge.

All providers are evaluated using PAC’s proven methodology, which is based on personal face-to-face interviews and a detailed self-disclosure of each provider.

PAC reserves to also evaluate and position those providers in the PAC RADAR that do not participate in the self-disclosure process.

After the evaluation of the pre-defined criteria, each supplier’s position is plotted in the PAC RADAR. All criteria are classified by clusters and can all be attributed to the “Competence” and “Market Strength” main clusters.

Within the PAC RADAR the following applies: The closer a company is to the center, the closer they are to meeting customers’ requirements!

The provider evaluation, including a market description and short company profiles, is published as a report.

What is the PAC INNOVATION RADAR?

Concept and methodology of the PAC INNOVATION RADAR are similar to those of the traditional PAC RADAR.

While the traditional PAC RADAR focuses on mature services segments, the PAC INNOVATION RADAR, however, positions providers in rather new and innovative service segments.

Thus the focus of the evaluation is rather on the portfolio, vision, investment and capabilities than on existing references, projects and resources.
What is the PAC definition of IoT platforms?

IoT platforms provide two basic types of functionality to clients: managing IoT devices AND managing IoT applications.

- **IoT device management** covers device security & connectivity, as well as the entire deployment & lifecycle management of connected devices.
- **IoT application management** includes application development & integration, data management & analytics, and also data visualization & event processing.

What is included in the technology stack of IoT platforms?

The following illustration shows all technical aspects of IoT platforms, from the top level down to the specific details.

<table>
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<tr>
<th>Top level</th>
<th>Overview</th>
<th>In detail</th>
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<tbody>
<tr>
<td>Backend</td>
<td>IoT application management</td>
<td>Application integration (iPaaS)</td>
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<td>Application development (aPaaS)</td>
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<td></td>
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<td>Data management &amp; analytics (dPaaS)</td>
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<td>Visualization &amp; event management</td>
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<td>IoT device management</td>
<td>Device deployment and lifecycle management</td>
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<td>Device connectors</td>
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<td>Edge</td>
<td>IoT gateway</td>
<td>IoT gateway</td>
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<td></td>
<td>IoT device</td>
<td>Embedded SW</td>
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</table>
How does PAC segment the provider landscape for IoT platforms?

PAC is going to evaluate the providers of IoT platforms in Europe in four different PAC INNOVATION RADAR segments, which are dedicated to specific user groups and use cases:

• IoT platforms for device developers to develop embedded software for IoT devices,
• IoT platforms for device managers to centrally manage IoT devices on a large scale,
• IoT platforms for users of IoT devices to quickly and easily create IoT applications for themselves,
• IoT platforms for IoT application developers to create complex IoT applications for their clients.

How will the providers be matched to the different types of IoT platform?

Depending on their focus, the providers will be positioned in one of the four PAC INNOVATION RADAR analyses. If providers offer several independent IoT platforms tailored to different users and use cases, they can be positioned in more than one PAC INNOVATION RADAR.

Why is PAC evaluating different types of IoT platform?

None of the IoT platforms available in the market today cover all functions around IoT-related device and application management for all kinds of needs. Existing IoT platforms focus on specific functions regarding device and application management to serve the needs of specific user groups around dedicated use cases.

Therefore, each Platform RADAR emphasizes on specific areas of device and application management dedicated to special use cases and special user groups.
What are the focus areas of the different types of IoT platforms?

Depending on user groups and use cases we see different functional focus areas of existing IoT platforms in the market:

- **IoT platforms for device developers** (to develop embedded software for IoT devices) focus on device management, security and connectivity plus the related operating systems to build embedded SW on;
- **IoT platforms for device managers** (to centrally manage IoT devices on a large scale) focus on cloud-scale device management and connectivity for many different devices;
- **IoT platforms for users of IoT devices** (to quickly and easily create IoT applications for themselves) focus on the rapid and flexible visualization of data for non-IT users;
- **IoT platforms for IoT application developers** (to create complex IoT applications for their clients) focus on tools for application development and application integration in combination with analytics capabilities.

Of course it is not a black-and-white mapping of technological capabilities, and to some degree we see overlaps with other existing platform types. The focus areas of these different IoT platforms are highlighted (by light and dark orange color coding) in the below illustration:
Which providers are positioned in the PAC INNOVATION RADAR?

Providers are selected and invited according to the following criteria:

• **Size of revenues** in the segment to be analyzed in the specified region
• **“Relevance”**: Even providers that do not belong to the top-selling providers in the segment to be analyzed are considered, if PAC classifies them as relevant for potential customers, for instance due to an innovative offering, strong growth, or a compelling vision.

There is no differentiation as to whether the providers are customers of PAC – neither in the selection of the providers to be positioned, nor in the actual evaluation.

What should providers accept the invitation to participate actively?

Whether or not a provider participates in the RADAR process does not actually affect its inclusion and positioning in the PAC INNOVATION RADAR, nor its assessment.

However, there are a whole host of benefits associated with active participation:

• Participation ensures that PAC has access to the largest possible range of specific and up-to-date data as a basis for the assessment.
• Participating providers can set out their specific competences, strengths and weaknesses as well as their strategies and visions.
• The review process guarantees the accuracy of the assessed factors.
• The provider gets a neutral, comprehensive, and detailed view of its strengths and weaknesses as compared to the direct competition – related to a specific service in a local market.
• A positioning in the PAC INNOVATION RADAR gives the provider prominence amongst a broad readership as one of the leading operators in the segment under consideration.

PAC INNOVATION RADAR
Provider selection & participation

What do providers have to do in order to be considered in a PAC INNOVATION RADAR analysis?

The decision as to which providers are considered in the PAC INNOVATION RADAR analysis is entirely up to PAC. Providers do not have any direct influence on this decision.

However, in the run-up to a PAC INNOVATION RADAR analysis, providers can make sure in an indirect way that PAC can adequately evaluate their offerings and positioning – and thus their relevance – e.g. by means of regular analyst briefings etc.
Evaluation method

PAC uses predefined criteria to assess and compare the providers within given service segments.

The assessment is based on the report-card score within the peer group of the positioned providers.

This is based on:
• The provider’s detailed self-disclosure about resources, distribution, delivery, portfolio, contract drafting, pricing, customer structure, references, investments, partnerships, certifications, etc.;
• If applicable, a poll among customers by PAC;
• The analysis of existing PAC databases;
• Secondary research;
• Dedicated face-to-face interviews as relevant.

The provider data is verified by PAC and any omissions rectified based on estimates.

If the provider does not participate, the assessment is performed using the proven PAC methodology, in particular based on
• Information obtained from face-to-face interviews with the provider’s representatives, analyst briefings, etc.;
• Assessment of company presentations, company reports, etc.;
• Assessment of PAC databases;
• Assessment of earlier PAC (INNOVATION) RADARs in which the provider participated;
• Poll among the provider’s customers (as required) on their experiences and satisfaction.

Reissue of published RADARs

The assessments in the PAC INNOVATION RADAR represent an assessment of the providers within the given peer group in the year in which the respective PAC INNOVATION RADAR was published.

The evaluations may not be directly comparable with those of the previous version due to subsequent content modifications. In particular, they do not depict a development of individual providers over time.

Methodological and/or organizational modifications may be made due to changing market conditions and trends and can include:
• Different peer group in the focus of the analysis;
• Modification of individual criteria within clusters and sub-clusters;
• Increased or altered expectations by user companies;
• Adjustment of the weighting of individual criteria.
Publication of the results by PAC

PAC publishes the results in the form of the PAC INNOVATION RADAR report, which, like all SITSI® publications, is provided to our customers for download via the portal www.pac-online.com.

The PAC INNOVATION RADAR is provided free of charge to the user companies that regularly work with PAC as well as to the participating referees on request; and also to all members of the PAC CxO Research Panel.

Extracts from the PAC INNOVATION RADAR results are also supplied to the industry and business press as well as the leading ICT user associations.

Publication of the results by providers via reprint licenses

Participation in the PAC INNOVATION RADAR is free of charge. License fees are only payable for use of the results and for the exploitation rights.

Usage options for PAC INNOVATION RADAR results by user companies

The PAC INNOVATION RADAR supports ICT and business decision-makers in classifying and selecting the right service provider.

Using the dynamic MS Excel tool that is provided exclusively to user companies, ICT decision-makers can weight all evaluated criteria in line with their specific preferences and requirements. This gives you an initial steer on which provider is right for you.

Additionally, the PAC INNOVATION RADAR results are used as the basis for individual consultancy projects for provider evaluation and pre-selection.

Usage options for PAC INNOVATION RADAR results by providers

• **In strategic market and competition analysis:**
  The PAC INNOVATION RADAR is the ideal benchmarking tool. Providers get a neutral, comprehensive, and detailed view of their strengths and weaknesses as compared to the direct competition – related to a specific service in a local market.

• **In sales:**
  The PAC INNOVATION RADAR helps providers define a successful growth and positioning strategy. It further provides sales arguments based on an independent assessment of the specific strengths and weaknesses.

• **In sales, marketing, and communication via reprint rights:**
  Providers can exploit their positioning in the PAC INNOVATION RADAR for sales, marketing, and public relations via reprint rights to the assessment results.
PAC INNOVATION RADAR report
Company-wide license

Contents
• Introduction
• Description of the evaluation methodology
• The most important trends and insights from the analysis
• Presentation of the PAC INNOVATION RADAR and the positioning highlights
• Summary analysis of the providers positioned in the PAC INNOVATION RADAR

Exclusive for user companies
• MS Excel tool with evaluation of all individual criteria and options for individual weighting

Reprint rights for providers

Limited reprint right
Permits use of the reprint versions of the PAC INNOVATION RADAR report and the PAC INNOVATION RADAR graphic in company-produced documents such as offers, presentations, etc. Public dissemination is not permitted, e.g. via websites or media (print/online)

Content of the reprint version of the PAC INNOVATION RADAR report (limited):
• Introduction
• Description of the evaluation methodology
• Presentation of the PAC INNOVATION RADAR graphic
• Summary analysis of all providers positioned in the PAC INNOVATION RADAR

Unlimited reprint right
Enables the unlimited distribution of the PAC INNOVATION RADAR reports and the PAC INNOVATION RADAR graphic, incl. dissemination via all media.

Content of the reprint version of the PAC INNOVATION RADAR report (unlimited):
• Introduction
• Description of the evaluation methodology
• Presentation of the PAC INNOVATION RADAR graphic (mention by name of the participating providers)
• Summary analysis of the licensee
PAC INNOVATION RADAR

Your participation

PAC is currently preparing four PAC INNOVATION RADAR analyses “IoT platforms” (for IoT device developers, for IoT device managers, for IoT device users as well as for IoT application developers).

The PAC INNOVATION RADAR reports are going to be published in July 2017 (subject to change).

In order for full consideration to be given to your company, we request your cooperation.

Enclosed is a self-disclosure questionnaire. Please answer this as fully as possible. Your responses will be checked for feasibility and adjusted as necessary to ensure comparability of data. Missing or incomplete responses will be completed by PAC using estimates.

To include the self-disclosure in the assessment, please return the self-disclosure by no later than May 12, 2017.

Participation of provider in the creation of the PAC INNOVATION RADAR

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<th>Participant</th>
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<td>Transmission of documents</td>
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<td>Mid of May 2017</td>
<td>Confirmation of receipt</td>
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<tr>
<td>End of May 2017</td>
<td>Personal coordination</td>
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<tr>
<td>June &amp; July 2017</td>
<td>Analysis &amp; publication of PAC INNOVATION RADARs</td>
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<td>Invitation and self-disclosure</td>
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<td>Return of self-disclosure and, if applicable, of further material (presentations etc.)</td>
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<td>Clarification of open questions</td>
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<td>Personal coordination</td>
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<td>Confirmation of receipt and of participation</td>
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<td>Transmission of complete documents</td>
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Mid of March 2017

Mid of May 2017

End of May 2017

June & July 2017
About PAC – a CXP Group Company

Founded in 1976, Pierre Audoin Consultants (PAC) is part of CXP Group, the leading independent European research and consulting firm for the software, IT services and digital transformation industry.

CXP Group offers its customers comprehensive support services for the evaluation, selection and optimization of their software solutions and for the evaluation and selection of IT services providers, and accompanies them in optimizing their sourcing and investment strategies. As such, CXP Group supports ICT decision makers in their digital transformation journey.

Further, CXP Group assists software and IT services providers in optimizing their strategies and go-to-market approaches with quantitative and qualitative analyses as well as consulting services. Public organizations and institutions equally base the development of their IT policies on our reports.

Capitalizing on 40 years of experience, based in 8 countries (with 17 offices worldwide) and with 140 employees, the CXP Group provides its expertise every year to more than 1,500 ICT decision makers and the operational divisions of large enterprises as well as mid-market companies and their providers. CXP Group consists of three branches: Le CXP, BARC (Business Application Research Center) und Pierre Audoin Consultants (PAC).

For more information, please visit www.pac-online.com.

PAC’s latest news: www.pac-online.com/blog

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Your contact at PAC for all questions on the current PAC INNOVATION RADAR analyses