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# The driving forces behind a successful automotive software delivery footprint

The automotive industry is struggling to attract the best talent and build up research and design hubs for in-house software development.

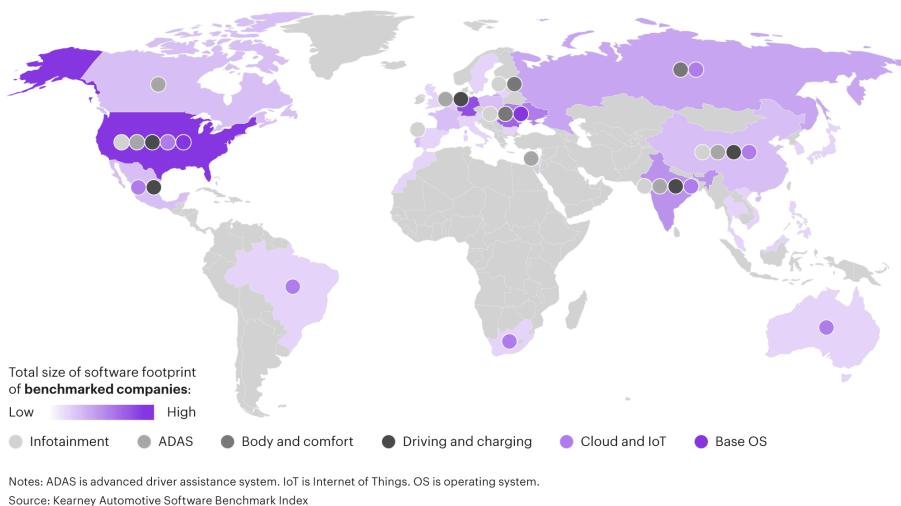
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Over the past few years, a series of trends and seismic shifts have redefined the landscape. Today, established original equipment manufacturers (OEMs), new challengers, and tier 1 suppliers alike are navigating how to perform as [software-driven companies](#). They know that improving their software delivery capability is key to meeting essential strategic targets such as growth, higher make-ratio, and increased cost-effectiveness.

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With all the talk around emerging technologies and the pace of innovation, it can be easy to lose sight of the fact that people and places are still at the heart of this progress. Ultimately, the companies making waves in this space and leapfrogging competitors are those that focus on winning the ever-increasing war for tech and software talent. But every organization is different. Depending on the company’s strategic ambitions and unique challenges, a careful balance must be struck between finding the right people and premises to achieve success (see figure 1).

Figure 1  
**Global automotive software footprint showing the total size and focus domains of countries**





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## Key considerations when setting up a global software delivery chain

Today, automotive organizations everywhere are faced with the challenge of how to set up an optimized global software delivery chain that considers the existing operating model and footprint (domain-specific development, testing and integration), and the competitive set-up. Deciding on the right premises requires careful consideration of several key factors. Not only the draw for talent, value for money, and location manageability, but also whether the premises will create a long-term tech and software environment while improving core capabilities at pace.

Based on our Automotive Software Benchmark Index, we identified the preferred approaches for three different profiles: established OEMs, challenger OEMs, and tier 1 suppliers.

### Established OEMs

To limit complexity and build on their existing reputation and recruiting channels, established OEMs tend to grow close to their headquarters, building software centers in countries such as Germany, the United States, and China.



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Due to the larger size (>3,000 developers) these are then supported by tech hubs around the world.

## Challenger OEMs

In contrast, for challenger OEMs, talent drives footprint. Hiring where the best software talent is available comes first—prioritizing maximizing efficiency, which often comes with higher personal expenses per headcount. They focus on building a higher make-ratio (limiting outsourcing), with minimum personnel required (<2,000 developers). The superior output quality compensates for the higher staff cost. Tesla as an example hires 1,500 developers in the highly competitive area of Palo Alto. Although this comes at a considerable cost, they benefit from the transfer of knowledge within the Silicon Valley talent ecosystem. Here it's common practice for talent to rotate between roles at the tech giants, bringing with them cutting-edge expertise and a culture of continuous learning.

## Tier 1 suppliers

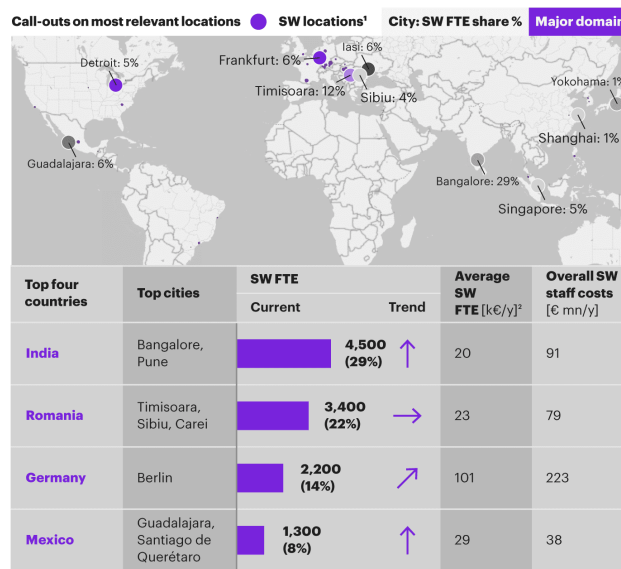
Overall, tier 1 suppliers (>10,000 developers) and volume OEMs look for the best value for money globally with a domain-specific footprint. They focus on nearshore locations in fast-follower centers such as Romania, Poland, Bulgaria, Portugal, and off-shore delivery centers such as Bangalore. This approach allows them to expand carefully,

balancing the staff cost-to-talent ratio while realizing the best-cost country efficiencies (see figure 2).

Figure 2  
**Example of software footprint and focus domains of tier 1 suppliers at a city level**

- Infotainment
- ADAS
- Body and comfort
- Driving and charging
- Cloud and IoT
- Base OS

Notes: SW is software. FTE is full-time equivalent. ADAS is advanced driver assistance system. IoT is Internet of Things. OS is operating system. Source: Kearney Automotive Software Benchmark Index



## Five steps to define your software delivery footprint

This best-in-class five-step approach is based on the competitor footprint and country overview from our [Global Services Location Index](#) (GSLI), which provides valuable macro- and microdata on broad economic and tech insights based on 47 metrics across four key themes and 15 sub-themes for more than 60 countries.

It also uses our Automotive Software Benchmark Index, where we have extended the GSLI to include software-



specific factors, developer/architect costs, and competition footprint, providing our clients with valuable insights at city level.

1. **Define strategic premises.** We jointly define the strategic macro and micro criteria to meet your ambitions. At a macro level these can include financial attractiveness, talent access, and ramp-up speed, and at a micro level a capabilities spectrum, future readiness, and scope extension options.
2. **Select potential countries.** We conduct a country-selection process, starting with a global perspective and refining down to a manageable set of countries that fulfil the defined strategic macro criteria.
3. **Evaluate options.** We evaluate the selected countries against the defined strategic micro criteria.
4. **Investigate in detail.** We investigate the resulting locations in detail, assessing recent political developments, employee attractiveness, software company footprint, investments, and domain expertise.
5. **Plan entry.** Lastly, we evaluate different entry options such as acqui-hiring, partnerships, investments, and acquisitions.

## Considering your software delivery footprint?

To gain more detailed benchmarking insights and learn how the Automotive Software Benchmark data can be used to challenge your software footprint and location strategy, please contact the authors below.

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