



Johnny Hooyberghs

What is new in .NET 6 and the future of .NET

involved

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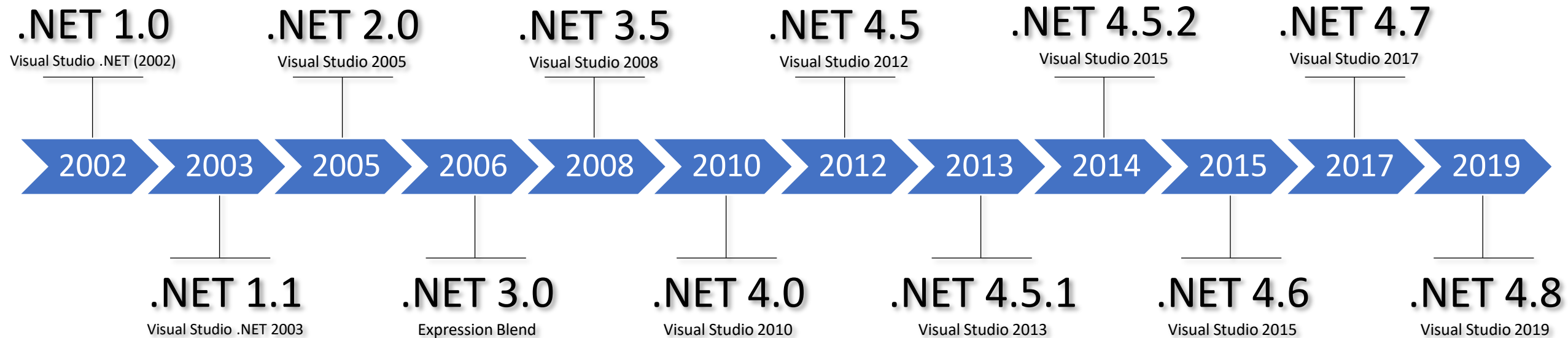


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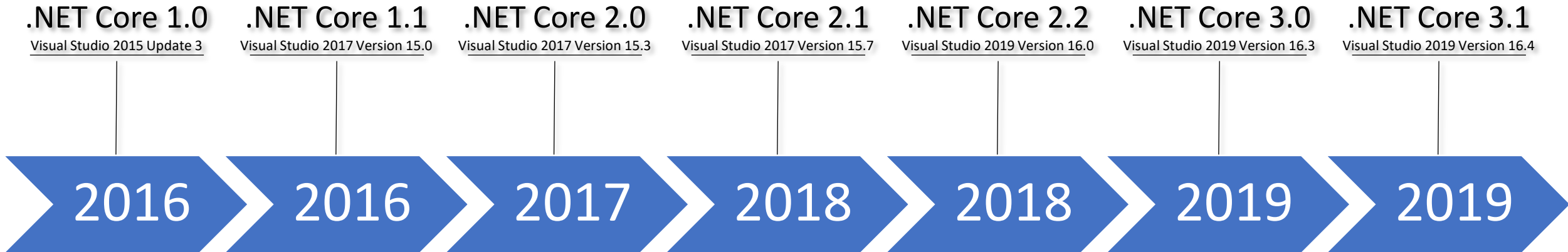


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.NET: a quick history

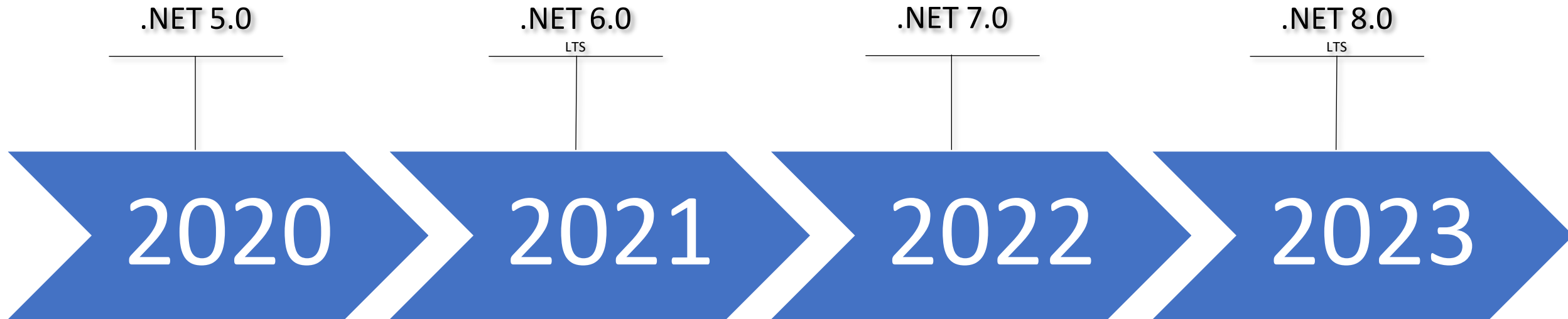


.NET Core: a quick history



.NET Core 1.0	June 27, 2019
.NET Core 1.1	June 27, 2019
.NET Core 2.0	October 1, 2018
.NET Core 2.1	August 21, 2021
.NET Core 2.2	December 23, 2019
.NET Core 3.0	March 3, 2020
.NET Core 3.1	December 3, 2022

.NET: what about the future?



.NET 5	3 months after .NET 6 release (around February 2022)
.NET LTS	Three years after initial release

.NET as multi-platform

- CLR, Mono, ...
- Portable Class Libraries
- .NET Standard
- .NET 5

.NET = A unified platform



<https://devblogs.microsoft.com/dotnet/introducing-net-5/>

.NET 5 = .NET Core vNext

- Single runtime and BCL
- Unified developer experience
- Expand .NET with capabilities of .NET Core, .NET Framework, Xamarin and Mono
- Single open-source code base



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Example 1 – Single SDK Experience

- Single CLI
- `dotnet new` and workloads
- Target framework names (TFM)
- “net5.0” replaces and combines “netcoreapp” and “netstandard”
- “net5.0-windows” is OS-specific and includes OS-specific bindings
- “net6.0-android”, “net6.0-ios”, “net6.0-maccatalyst”

Example 2 – Deployment features

- Default Executable
- Runtime Identifiers
- Single File Executable
- Assembly Linking

Example 3 – Modernized Templates

- Console Application
- ASP.NET Empty
- ASP.NET MVC
- Worker Service
- gRPC Service
- WinForms
- WPF

Example 4 – Source Generators

- ASP.NET
- gRPC
- System.Text.Json
- Write your own...

Example 5 – Hardware Intrinsics and NativeMemory

- SIMD
- Hardware Intrinsics
- NativeMemory

Example 6 – New JSON (System.Text.Json) features

- Performance
- Source Generators
- IEnumerable
- DOM

Example 7 – Linq features

- Support for Indices and Ranges
- OrDefault with customizable defaults
- MaxBy, MinBy
- DistinctBy, UnionBy, IntersectBy, ExceptBy
- Chunk
- TryGetNonEnumeratedCount

Example 8 – Async Dependency Injection

- `CreateAsyncScope`

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