



About History Validators Questions

UG Technical Insights into European E-invoices



- ▶ Mustangproject.org
- ▶ „Chief ZUGFeRD Amateur“

Technical Insights into European E-invoices

- ▶ ... since ~1970s EDI(FACT)
- ▶ 2005: Denmark UBL
- ▶ 2007: UN/CEFACT CII
- ▶ 2010: 2010/45/EU (B2B) → PDFs
- ▶ 2014: Germany GoBD
- ▶ 2014: ZUGFeRD, later also Factur-X
- ▶ 2014: 2014/55/EU (B2G) → EN16931
- ▶ 2017: XRechnung → Nov 2020, Apr 2021



UG Technical Insights into European E-invoices

- ▶ ZF/Factor-X
 - B2B, B2C and B2G
 - Validators can
 - check syntax
 - recalculate
 - (check PDF)
 - Structured invoices can refer to their orders
 - Scan providers offer hybrid invoices



UG Technical Insights into European E-invoices

- ▶ Why ZUV?
- ▶ Consists of
 - XML extraction using Mustangproject
 - PDF check using VeraPDF
 - XML check using Schema and Schematron
 - ZF
 - EN16931
 - XRechnung
- ▶ I had already failed with Corpus
- ▶ ZUV being integrated into Mustangproject



How you can help

▶ Thank you OPF, VeraPDF, Carl

▶ Further info

<https://www.mustangproject.org/einvoices/>

(Maybe you already received hybrid invoices?)^{git}

- <https://zugferd.org>
- <https://github.com/ZUGFeRD/corpus/>

▶ Questions? Jochen@zugferd.org