1. Recognising value
2. Handling
3. Checking authenticity
4. Receiving the communication message

Modelling user needs of payment instruments

4th International Cash Conference
Deutsche Bundesbank
Cash Department
10 - 12 September 2019
Munich

From user functions to banknote design

User functions → Functional requirements → User requirements → Design requirements → Banknote design

**What?** Recognising value
**How?**
1. Colour
2. Main image
3. Numeral
4. Size

**What?** Handling
**How?**
1. Orientation, sizes

**What?** Checking authenticity
**How?**
1. Trigger features, authenticity features, consistency over series
2. Size > 22 mm
3. 146 mm x 72 mm

**What?** Receiving the communication message
**How?**
1. Themes and names (series, denominations, features)

Banknote design elements within Upid-Model

**User Interface Functions**
1. **Recognising value**
   - Colours, discriminating main images, numerals, sizes
2. **Handling**
   - Orientation, sizes
3. **Checking authenticity**
   - Trigger features, authenticity features, consistency over series
4. **Receiving the communication message**
   - Themes and names (series, denominations, features)

**User Experience Functions**
1. **Experiencing identity**
   - Currency unit, language, map, flag, other national symbols
2. **Judging aesthetics**
   - Beautiful, unique, modern
3. **Retaining confidence**
   - Signature, striking foil stripe
4. **Connecting with main image**
   - Recognisable, appealing images
5. **Expecting sustainability**
   - Substrate, durable, ethical aspects
6. **Linking to information technology**
   - Banknote number, QR-code, printed electronics, digital features