Training in the Frame of the Erasmus+ CBHE Project

Role of Universities in the Regional Development (RURD)

609741-EPP-1-2019-1-GE-EPPKA2-CBHE-SP

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Training
Masaryk University
Brno, Czech
Republic
May 5-7, 2021

Universal Learning Design and Accessibility of Masaryk University

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1.1. Mission of the Teiresias Centre

1. **Central body of Masaryk University in Brno,**
   coordinates university's methodical activities, which ensure:
   a. its **universal design for learning**,
   b. **individual adjustments for persons with special needs**.
2. Provides **practical services** for the following target groups:
   a. **persons with special needs themselves,**
      (applicants, students, teachers, administrative staff),
   b. teachers, administrative and other staff who belong to the mainstream,
      but need to co-operate with the previously listed groups.
3. Functions as **a methodical centre and service provider at the regional, national and international level**.

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1.2. Position of the Teiresias Centre

Masaryk University

- Founded: 1919
- Staff: 6300
- Faculties: 10
- Students: 30000

Centre Teiresias

- Founded: 2000
- Staff: 44 int., 100 ext.
- Sections: 5
- Students: 2500 since 2000

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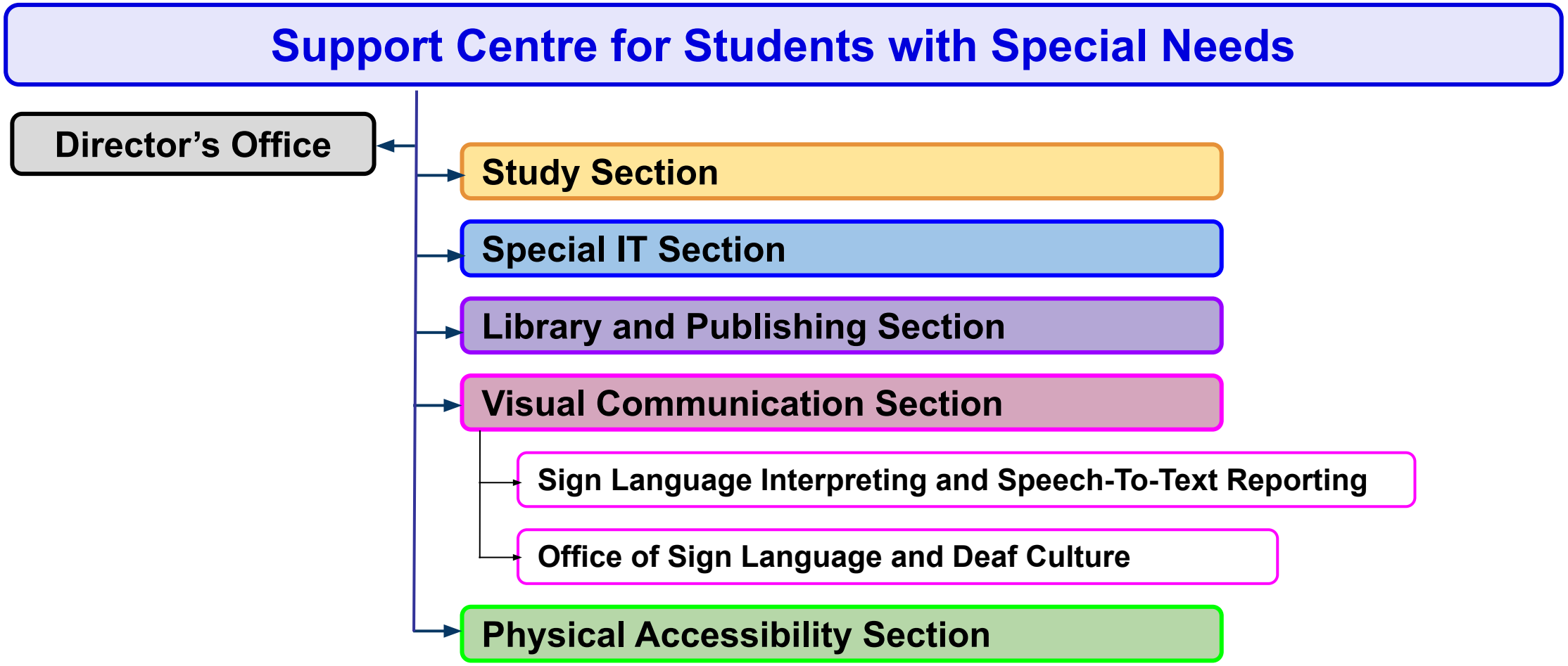
1.3 Organisation chart



Statistics 1
Statistics 2

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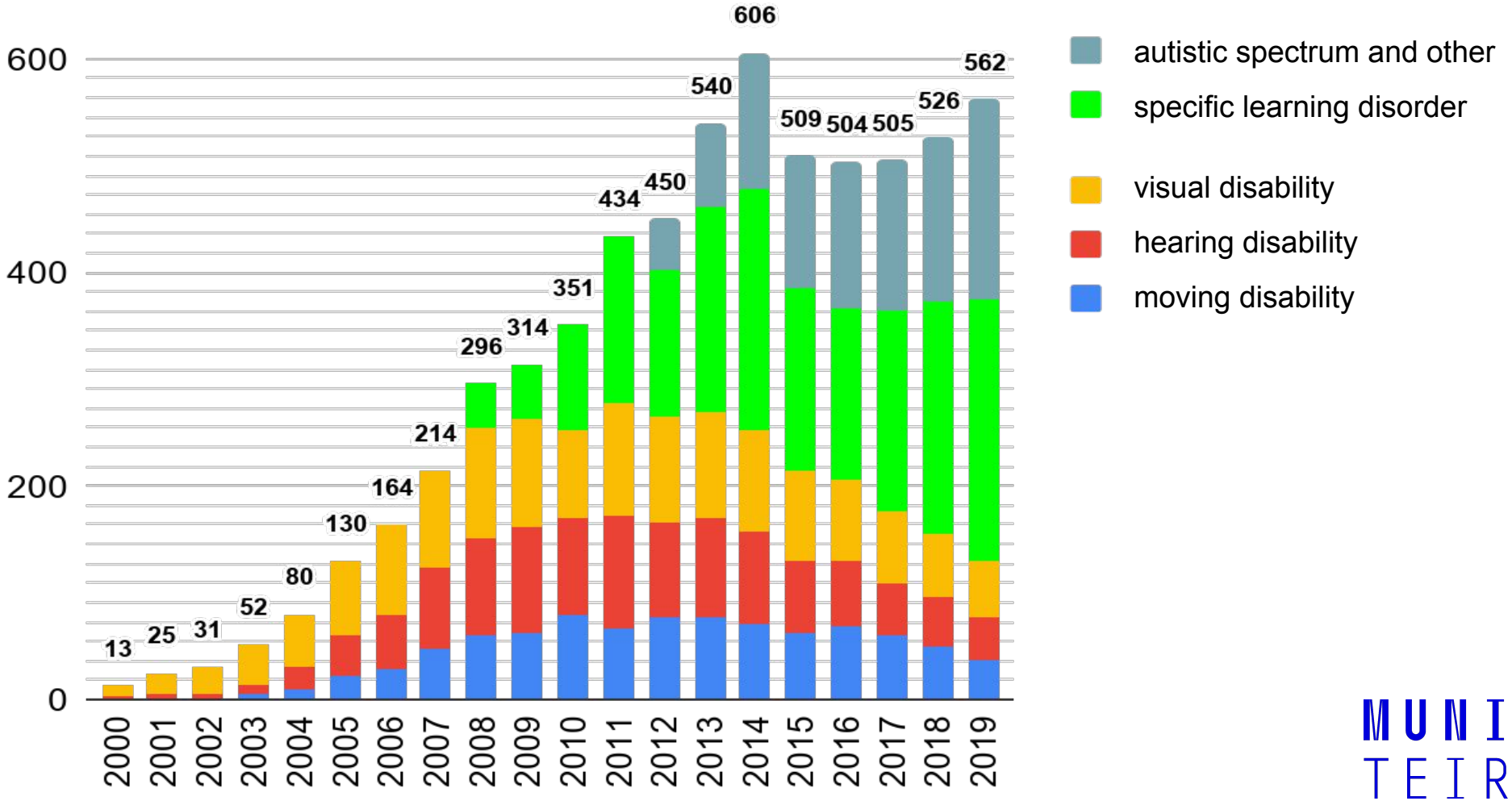
1.4. Some Statistics

1.4.1. Students asking for individual adjustment



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1.5. Key activities of the Teiresias Centre

Pedagogical counseling and teaching

- Monitoring of the universal design for learning
- Individual study plans and teaching
- Adjustments of teaching methods
- Adjustments of testing and examinations
- Pedagogical and career counseling
- Psychological counseling
- Psychotherapy
- Accessible international mobility

Accessibility of the virtual environment

- Monitoring of the accessibility
- Special study rooms and teaching rooms
- Development of special applications
- Technological counseling and special ICT courses

Accessibility of the physical environment

- Monitoring of the accessibility
- Personal assistance
- Spatial orientation of the blind
- Accessible accommodation and catering

Accessibility of the information sources

Accessibility of the documents

- Electronic documents
- Tactile documents
  - Texts
  - Graphics, maps
- Audio documents
- Video documents

Accessibility of the speech communication

- Sign language interpreting
- Visualisation of the oral speech
  - Signed oral language
  - Speech-to-text (CART)
  - Visible articulation
- Note-taking

Sign language and Deaf culture

- Foreign languages for the Deaf
- Sign language courses

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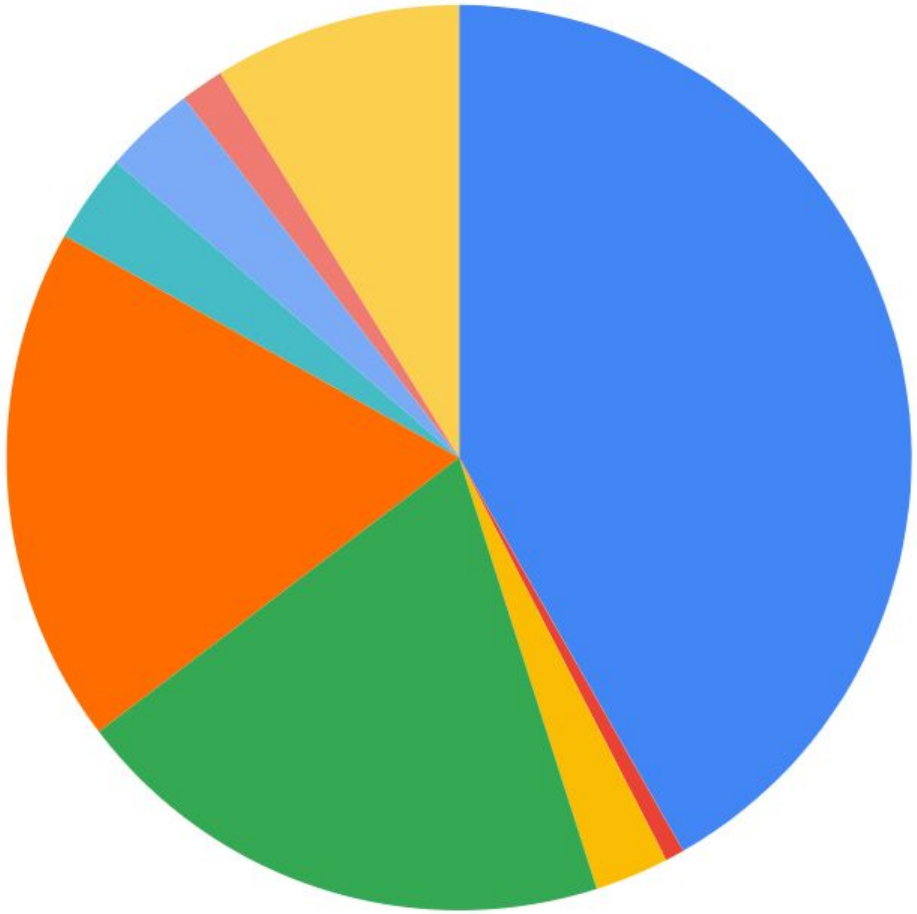
1.6 Annual Budget

2020: 1 508 444 €



- grant of the Ministry of Education
- MU grant
- MU internal projects
- projects ESF/ERDF
- Erasmus+
- Donations and gifts
- Own commercial activities
- R&D support
- other sources

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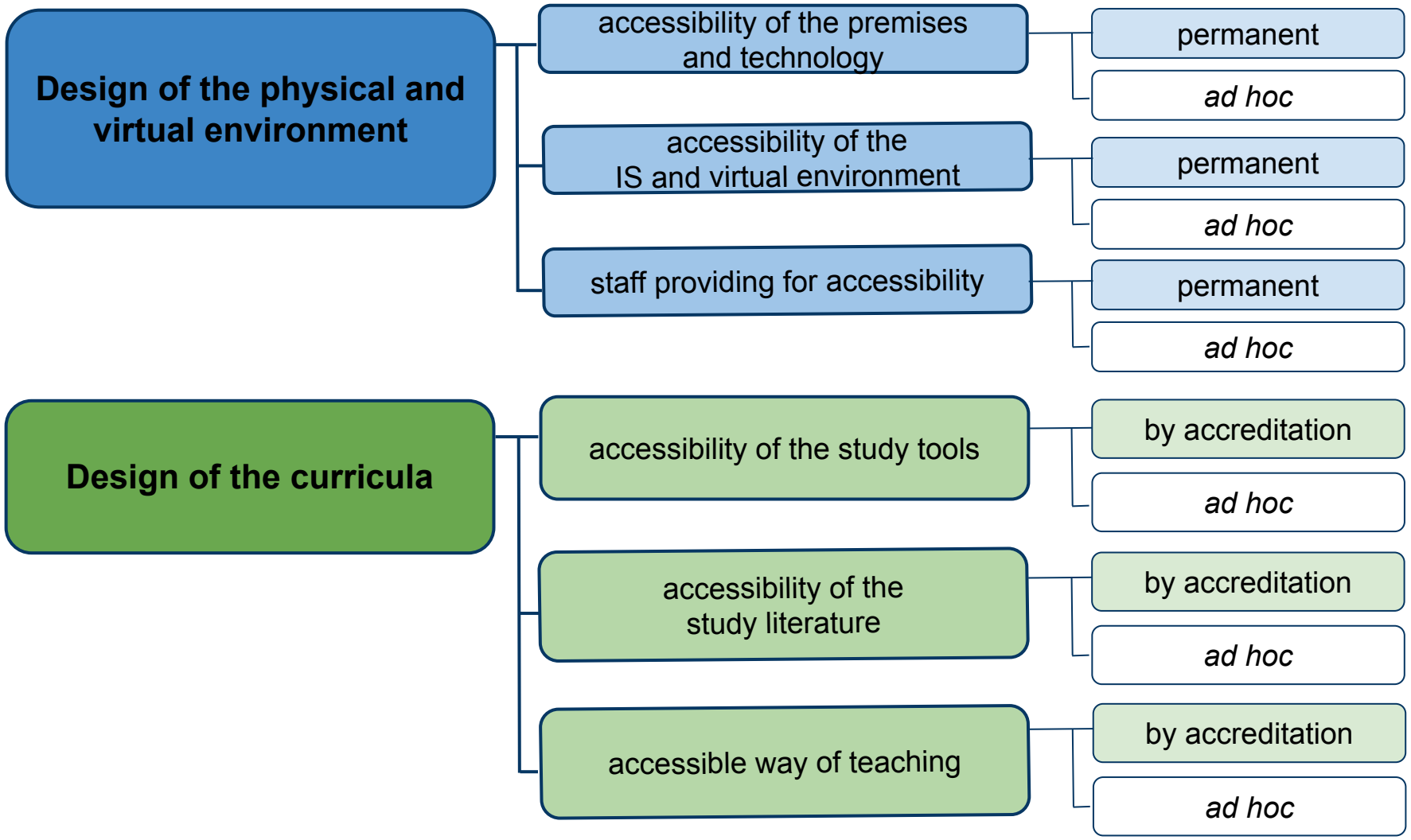
2.1. Universal design for learning



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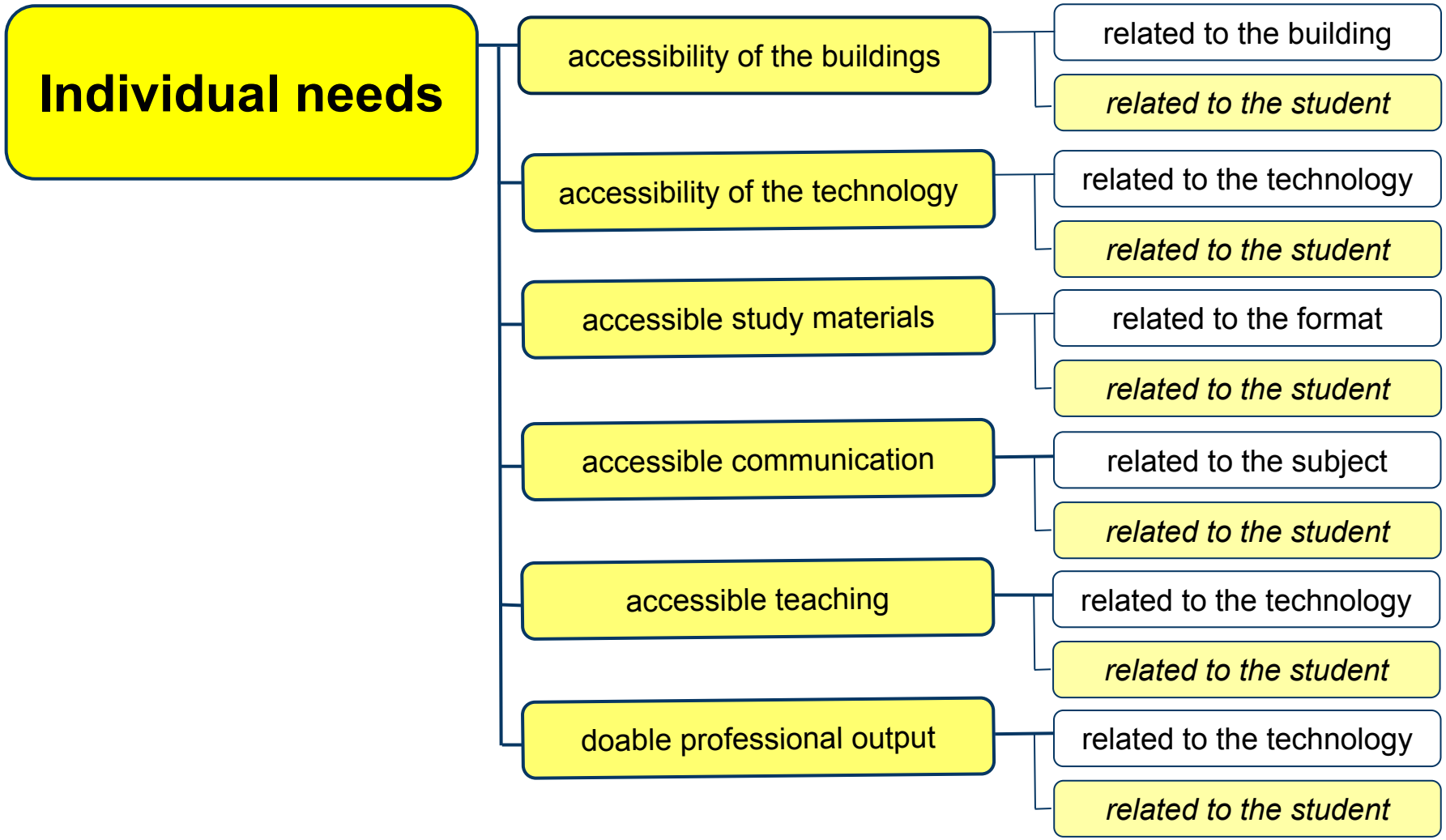
2.2. Individual adjustments



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3.1 More about the Universal Learning Design

- targets the use of products, services and systems by as many people as possible without the need for adaptation;
- considers broad variety of users – diversity of humans, specifically e.g.:
  - people with disabilities – sensorial, motoric, on communication, etc.
  - neuro-cognitive disorders
  - ageing
  - people from different language and cultural contexts
  - users of various technological platforms
  - …

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3.2. Applying Universal Design in practice

Examples of Teiresias' activities on (co-)organizing

- presentations,
- conferences,
- lectures,
- workshops, etc.

in terms of *designing* the events *for all*.

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3.3. Main targets group of participants

- deaf/Deaf, hard of hearing people
- blind, people with low vision
- people whose native language differs from the main one

↓

- accessibility of (verbal) communication
- accessibility of (visual) documents

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4.1. Accessibility of communication

- speech-to-text reporting (captioning)
  - now available at www.text-on-tap.live/index.html#e=rurd-captions
  - technologies used: Polygraf, Text on Top/Tap
- sign language interpreting
- personal perception of amplified audio via headphones or hearing aid (induction loop)

Way Forward?
Shadi Abou-Zahra
W3C/WAI, Austria
Asakawa
Saqib Shaikh,
Microsoft (Seeing AI),
United Kingdom
Paul Timmers,
European Policy Centre
Brussels, Belgium
interweaving of the virtual and the real world, perhaps it's not a very good moment in time, with the emergence of IOT, with the intelligence added to lake AI and inter
Miesenberger
Timmers
Shaikh

jsem zástupce pro výzkum, děkuji za pozvání panu Winterovi a bude to v podstatě taková ukázka toho, začnu tím, čím hostíme i zahraniční návštěvy, abychom upozornili na stav systmu následné péče v ČR, příklad Klad
Stav systému následné péče v ČR/ Kladruby
Vysoká úroveň ČR zdravotnictví (rehabilitace)
technologická vybavenost
plátci zdravotní péče, pojišťovny (úhrada zdravotní péče)
lidský přístup (přístup k pacientovi- zdravotnická pokoj)
Vždy je co zlepšovat
Osobnost poskytovatele zdravotní péče
každé zařízení si definuje samo (poskytovatele zdravotní péče)
Uznání zahraničních akademických návštěv (USA, Swiss, Izrael, Itálie, UK, Německo, Čína, Rusko)
Nadace Vodafone Česká republika

recovering.
First I would like to thank all the reviewers, experts from around the world. That have
JKU
JKU

Reservé

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4.2. Accessibility of documents (presentations)

- presentation slides accessible on an individual mobile device
  - for users with **low vision**
  - to be enlarged, color-adjusted etc.
  - technology used: Polygraf
- digital presentation documents provided to participants in advance
  - for **blind** users
  - to be accessed by their own assistive technology on their devices

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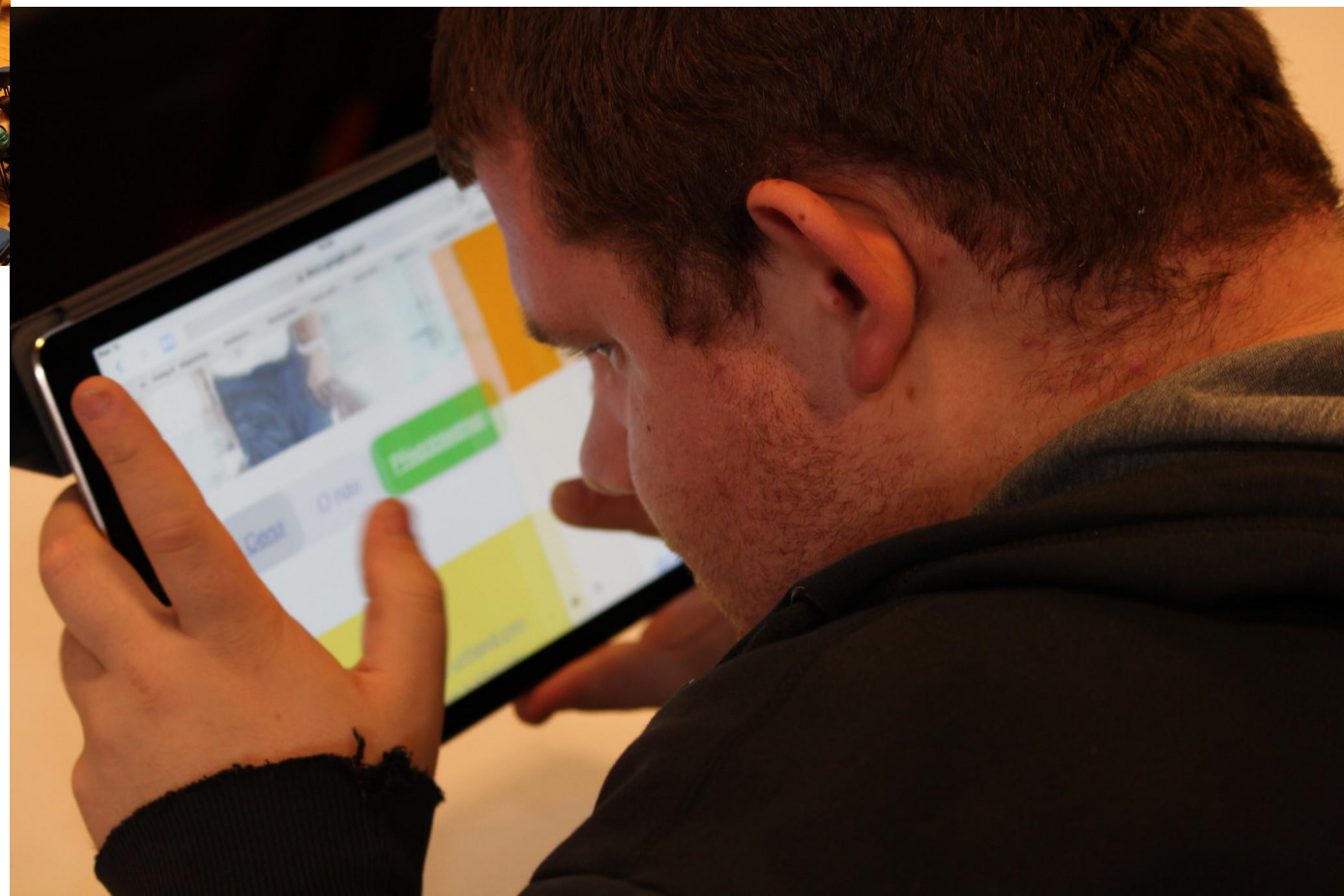
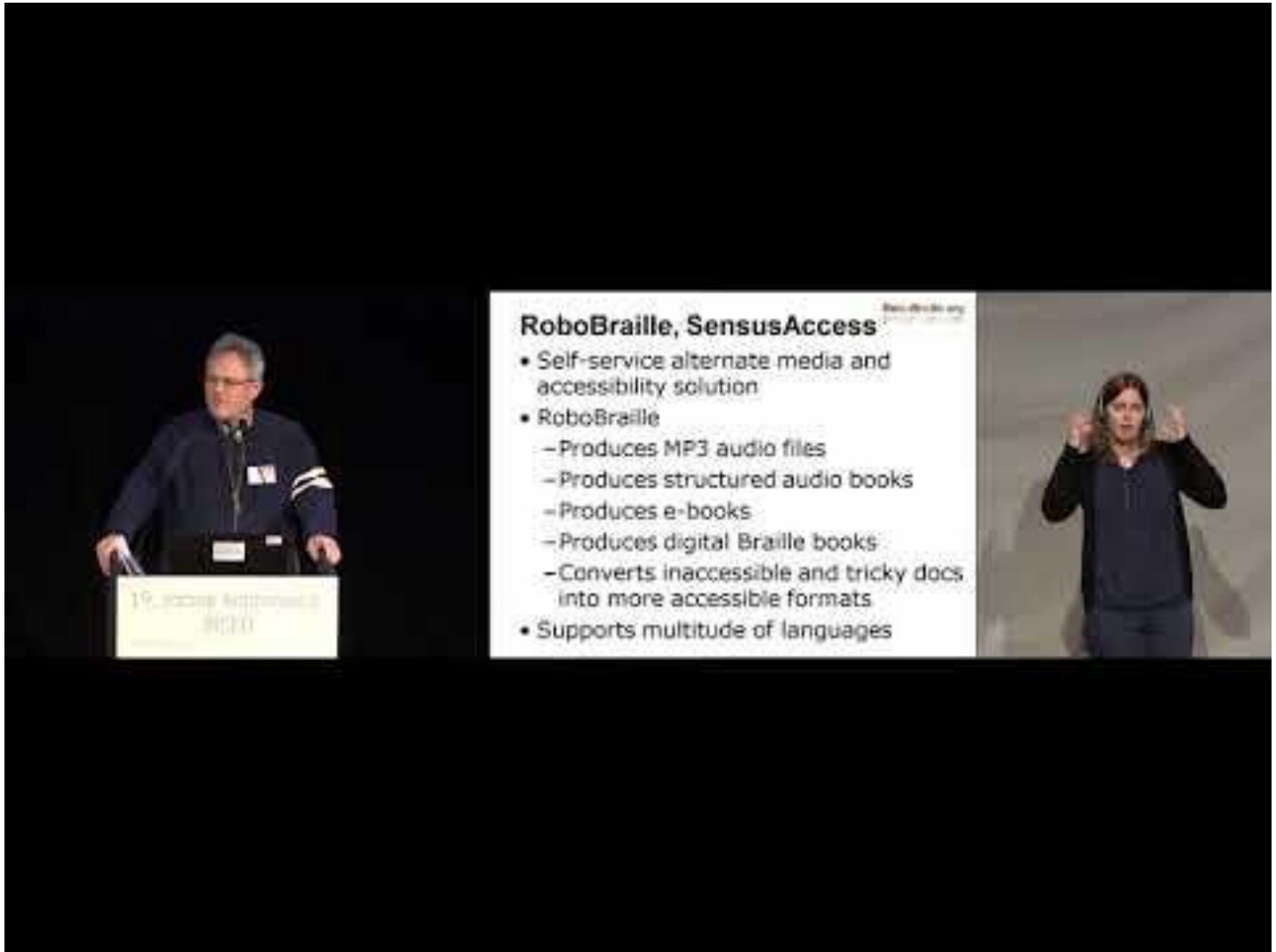
INSPO
máme oskenovaný obrázek.
Vy to asi nevidíte na
obrazovce. Já to popíšu,
máme před sebou soubor v
PDF, když přes něj přejedu
šipkou, pokusíme se obrázek
přenést na plátno. A teď jsme
on-line. Mám prezentaci začít
celou od začátku? Ne, ne, n



4.3. Accessibility of video lectures I



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4.3. Accessibility of video lectures II

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5. Social responsibility of Masaryk University in the field of universal design and accessibility

1. **Advisory boards and services** (national and world-wide)
2. **Public services** (national and world-wide)
3. **Commercial activities** (B2C, B2B; national and world-wide)
4. **Public events** (organisers and co-organisers; national and world-wide)

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5.1. Advisory Boards and Services

- advisory services and methodological support for ministry of education, schools, employers of disabled employees, assistive technologies users...
- advisory board for barrier-free Brno *(City of Brno)*
- governmental board for persons with disabilities *(Government of the Czech Republic)*
- expert panels and juries
- *Association of Service Providers for University Students with Special Needs* founded by Masaryk University

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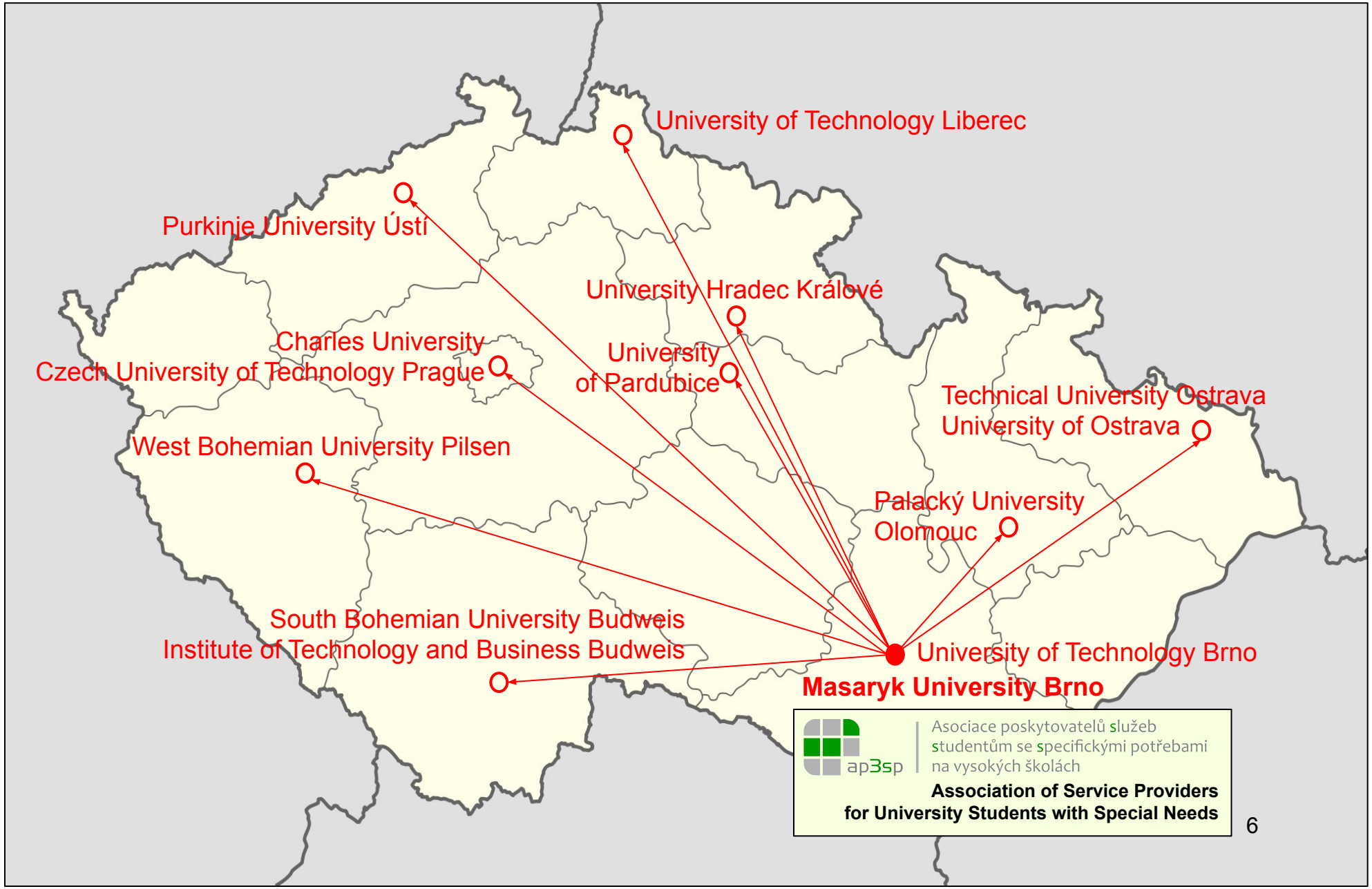

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5.2. Public Services

- accessible textbooks for schools (covering various disciplines (languages, history, architecture, geography, biology, mathematics, chemistry):
  - new production on demand:
    - digital books in accessible format
    - tactile books including tactile graphics (2D and 3D)
  - library services:
    - Daleth – national library gateway for visually impaired
- tactile maps on demand (braille paper, microcapsule paper or plastic): hapticke.mapy.cz (bfmaps.org)
- Pelion – educational gateway on assistive technologies
- Dictio – sign language dictionary online

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5.3. Commercial Services (B2B, B2C)

- accessibility assessment (web pages, electronic apps…)
- education, testing and instruction (DysTest, web accessibility, preparation of digital documents for blind users)
- sign language interpreting and translations, STTR/captioning
- development of assistive technology (BUF, Polygraf)
- tactile materials:
  - orientation signage (incl. labels for elevator buttons)
  - labels for exhibits (of plastic or other durable material)
  - orientation systems, haptic graphics, embossed prints, digital books in accessible format
- typical customers: museums, libraries, zoo, municipal authorities, public transport companies

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5.4. Public events

- **ICC** (International Camp on Communication & Computers for Blind and Visually Impaired Youngsters, since 2011)
- **ICCHP** (International Conference on Computers Helping People with Special Needs, since 2012)
- **INSPO** (national conference on technologies for people with special needs, since 2011)
- **Agora** (conference on ICT for people with visual impairment, since 2015)
- **Summer schools for teachers** of visually and hearing impaired students
- **University of Third Age** at Masaryk University
- **Jiří Mahen Library** in Brno, series of lectures “Library for barrier-free Brno”
- **Barrier-free Cinema Initiative** (accessibility for visually impaired)
- other conferences and workshops

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Thank you for your attention

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