



národní  
úložiště  
šedé  
literatury

## **National Technical Library – Library of Technical Universities**

Svoboda, Martin  
2009

Dostupný z <http://www.nusl.cz/ntk/nusl-113876>

Dílo je chráněno podle autorského zákona č. 121/2000 Sb.

Licence Creative Commons Uveďte autora-Neužívejte dílo komerčně-Zachovejte licenci  
3.0 Česko

Tento dokument byl stažen z Národního úložiště šedé literatury (NUŠL).

Datum stažení: 28.09.2024

Další dokumenty můžete najít prostřednictvím vyhledávacího rozhraní [nusl.cz](http://nusl.cz) .

# NTK

50°6'14.083"N, 14°23'26.365"E

Národní technická knihovna  
National Technical Library

210 mm

# National Technical Library – Library of Technical Universities

Martin Svoboda

Director of the State Technical Library

[m.svoboda@stk.cz](mailto:m.svoboda@stk.cz)



# Synopsis

210 mm

- History, the “before”
- Project
  - Vision
  - Goals
  - Dates
  - Facts & Figures
  - Lessons learned
  - Pictures
- Conclusion

# History

210 mm

- **1718** – Former military engineer **Willenberg** gets Imperial accreditation to teach „Ingenieurkunst“ and gets **300 florins** to buy books, models and instruments
- **1831** – The founder of Royal Czech Estates School F. J. Gerstner charges later professor of fermentation chemistry and rector of the Polytechnic **K. J. N. Balling** with the concentration of books to an indexed, subject arranged collection – advent of the library
- **1869** – after the split of the school to the Czech and German ones, the Library remains a common one, financed from the Country budget
- **1935** – an up-to-date library is built for the Library of Technical Universities (Czech and German) in the eastern wing of Clementinum
- **1960** – Library separated from Technical Universities
- **1991** – back under aegis of Ministry of Education
- **2009** – back to Technical Universities to the Dejvice campus

**NTK**

50°6'14.083"N, 14°23'26.36"E  
Národní technická knihovna  
National Technical Library

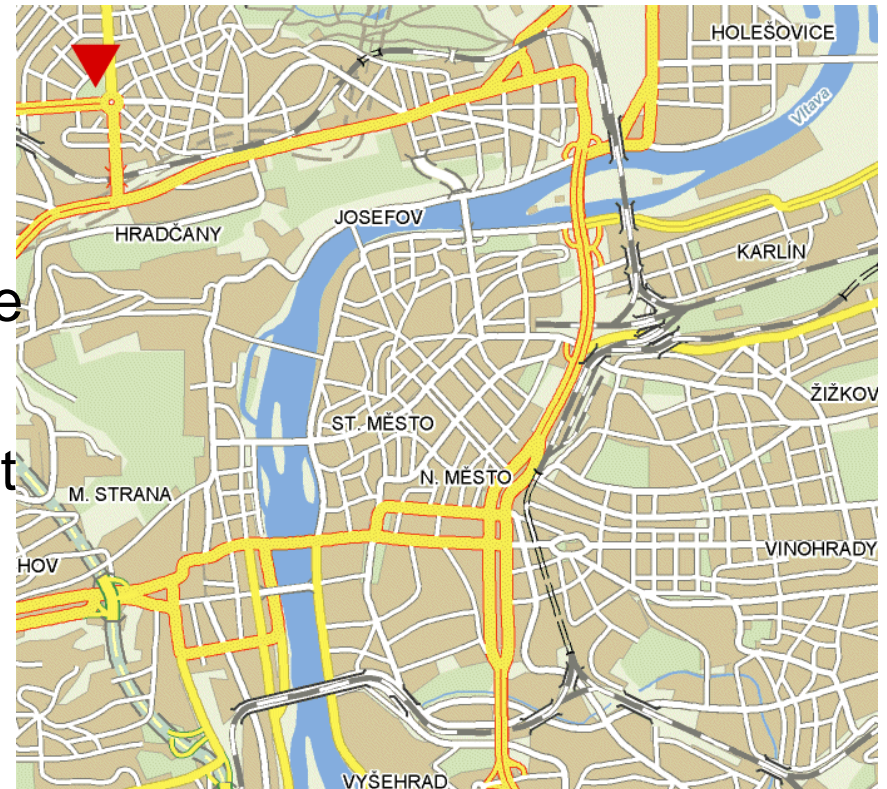


# History of the project

210 mm

- 1963 Maniny
- 1974 head of Nusle bridge
- 1992 Rohanský isle
- 1995 Dejvice – Vítězné square
- 1999 heart of the Dejvice campus – Technická street

- campus
- library





# Vision of the new library

210 mm

- transparent, permeable, understandable, flexible
- open, friendly, affable, inviting
- low energy and low operating costs house
- moderate use of hi-tech
- interior design – part of the overall building design
- materialised textbook of contemporary architecture, civil engineering and technology

# Project goals

210 mm

- Modern central common library serving universities, R&D and public in the technology and applied science area
  - national information infrastructure node for technology and related disciplines (e-resources licensing, national repository of grey literature, digitisation, EDD, ISSN centre, ...)
  - R&D laboratory of network technologies for library and information services
  - transform the library back to universities
  - release space in Clementinum for the National Library



# Project dates

210 mm

- 2000/07 – Gov't Resolution - Project NTL approved
- 2001/01 – Architectural contest - Projektil 
- 2001/07 – Memorandum of Agreement ČVUT-STK-VŠCHT
- 2004/02 – Gov't Resolution - budget 
- 2004/10 – project design started
- 2006/06 – permits acquired, supplier tender
- 2006/10 – the first dig 
- 2008/12 – take-over
- 09/09/09 – opening of NTK to public

# Costs

210 mm

Overall project cost	76.17 mio £
<i>out of it</i>	
building – carcass	38.75 mio £
technologies except IT	17.73 mio £
IT	4.20 mio £
interior – mobiliary	4.16 mio £
project management	2.37 mio £
project documentation	2.50 mio £
engineering supervision	3.87 mio £
financial services	5.98 mio £

exchange rate as of 6 Sept 2009

# Library spaces, volumes

210 mm

- 1 **322** study seats, mostly w/ network access + WiFi ubiquitous
- 562** relaxation seats
  - 29** individual study rooms (of it **2** for physically disabled and **2** multimedia study rooms suitable for visually impaired)
  - 18** group study rooms for 8-10 people
  - 4** computer study rooms (**1\*30**, **3\*50** seats)
  - 1** night / complementary reading room
  - 1** journals reading room, **>2000** journals + **15000** e-journals
  - 34** OPAC terminals + user PCs throughout the building
- >350 000** volumes in open stacks arranged by LCC
  - + ~ **150** e-textbooks
  - + **1.2** million volumes capacity in closed stacks underground

# Other functions

210 mm

- social functions for the campus in the ground-floor:
  - conference hall 230 seats
  - exhibition hall 370+410 m<sup>2</sup> (90+50 seats)
  - café/restaurant 150 seats
  - municipal library branch Praha 6 (32 seats, 25 000 vol's)
  - university bookstore; IT store & accessories
- training centre @ 30 seats in variable setup
- drink and snack machines on each storey
- baby changing boards
- + first-aid room in the basement
- 300 parking places, 200 bike stands
- 900 000 clients/year

# Building

210 mm

**53 820 sq ft** building plot area, of it

44 280 sq ft built-up area

**6 083 234 cu ft** total building volume, of it

4 055 501 cu ft above ground

2 027 733 cu ft under ground

**416 143 sq ft** useful area of all storeys

9 storeys, of it 6 above ground, 3 under ground

6 elevators and 5 staircases throughout the whole building

**8,025.36 Mbtu** expected annual energy consumption, of it

4,292.47 Mbtu heating

3,732.88 Mbtu cooling

# Construction

210 mm

1 743 838 cu ft	of earth excavated
55 711 t	weight of load-bearing structure, of it
102 t	steel structures
38 t	steel roof of the atrium
51 628 t	concrete without armature
400 t	tendons
25 mi	pre-stressing channels
600 t	pre-fabricated stair wings
5 399 sq ft	outer shell – glass form-pieces
6 320 sq ft	outer shell – sheet glass

# „Guinness book“ figures

210 mm

- 118 mi light-current cabling
- 1,100,000 cable clips
- 1346 automated combustion gas detectors
- 256 acoustic motion detectors
- 117 cameras
- 28.6 mi heating/cooling piping in floor slabs
- 38 750 sq ft floor heating in ground floor
- 233 254 sq ft rubber flooring
- 44 401 sq ft bituterazzo in the ground floor
- 27 986 sq ft sound absorbing lining
- 12.43 mi pipes of high pressure extinguishing system
- 4 110 nozzles of high pressure extinguishing system
- 1 345 ft automatic smoke & heat screens



# Lessons learned

210 mm

- **P**lot – fundamental, otherwise risky business
- **P**ecunia – not just the volume, the certainty is what counts
- **P**artnership – in-house, governing body, architects, designers, contractor, ...
- **P**erspective – design for the [unknown] future
- **P**hlexibility – both in project and in decisions

# People

210 mm

**Everything** described above, that is the idea, the design and a construction of the new building, in parallel with the working “old library” shaping up for the reincarnation in the new environment; this all starting with authors of the initial idea, through archeologists, architects, artists, assemblymen, building team, businessmen, designers, developers, draughtsman, economists, gate-keepers, IT people, lawyers, librarians, managers, organisers, suppliers, quantity & quality surveyors, trustees, etc. is a result of a collaboration of tens and tens of people.

**I would like to thank** all who endeavoured to accomplish this Gesamtkunstwerk.

# Some pictures

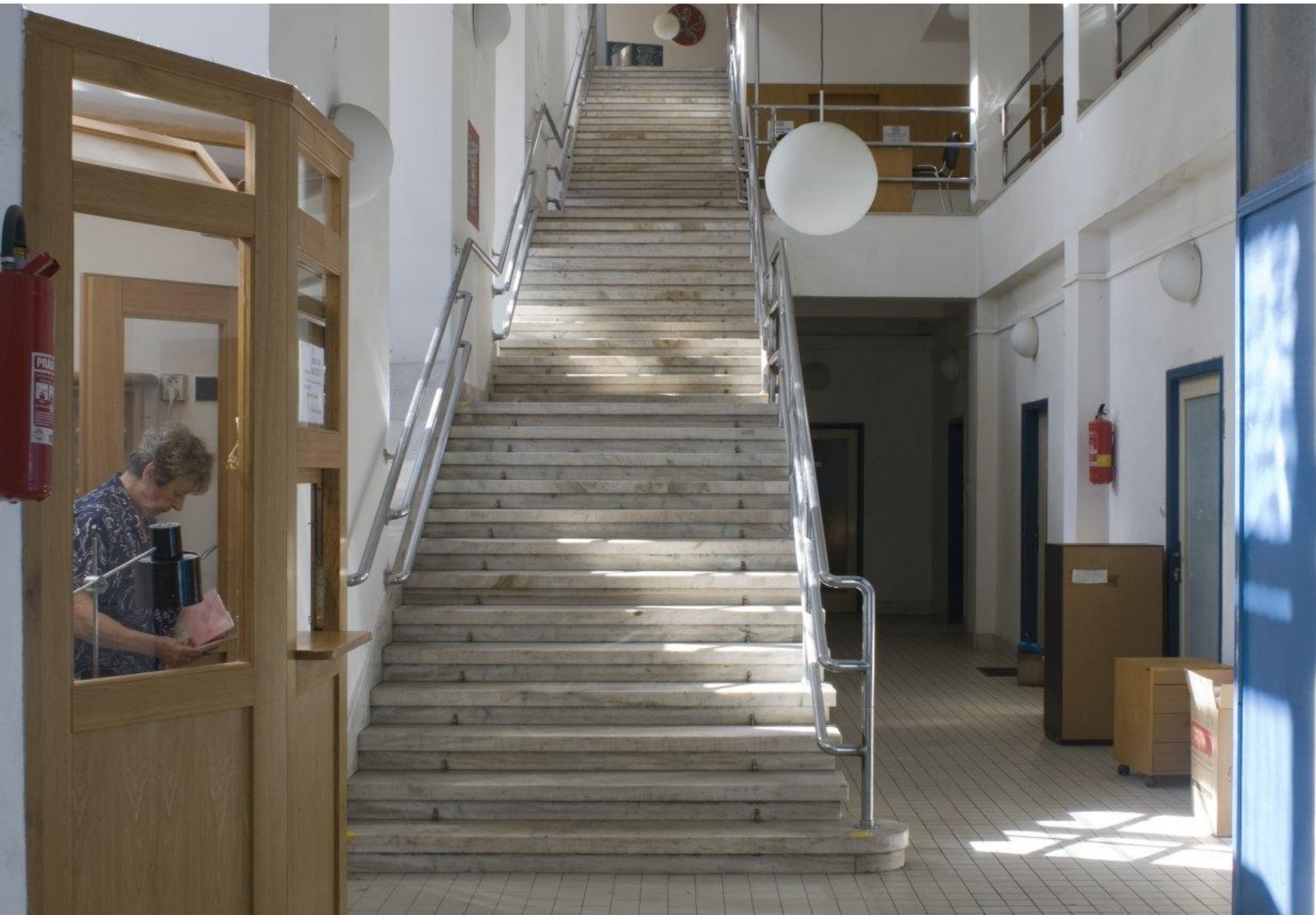
210 mm





# NTK

50°6'14.083"N, 14°23'26.365"E  
Národní technická knihovna  
National Technical Library







MORINI TELEFONI















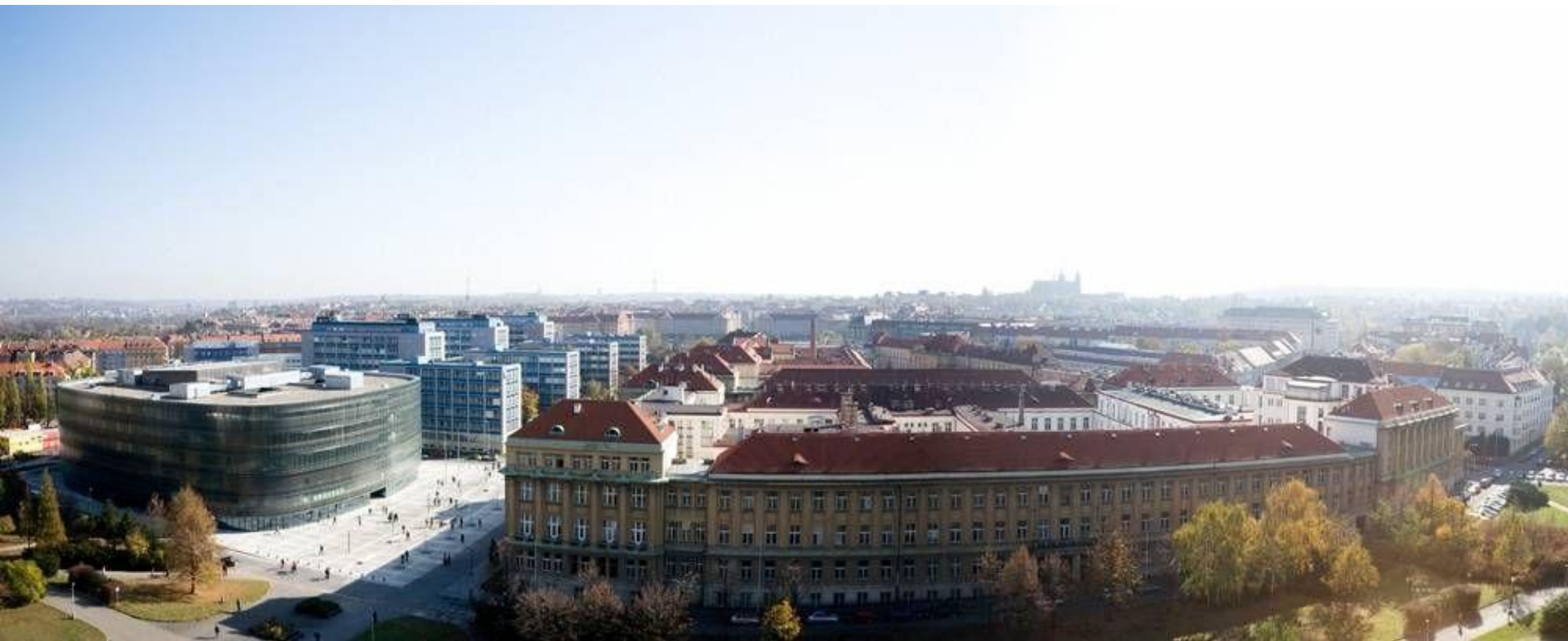


Jan 2007



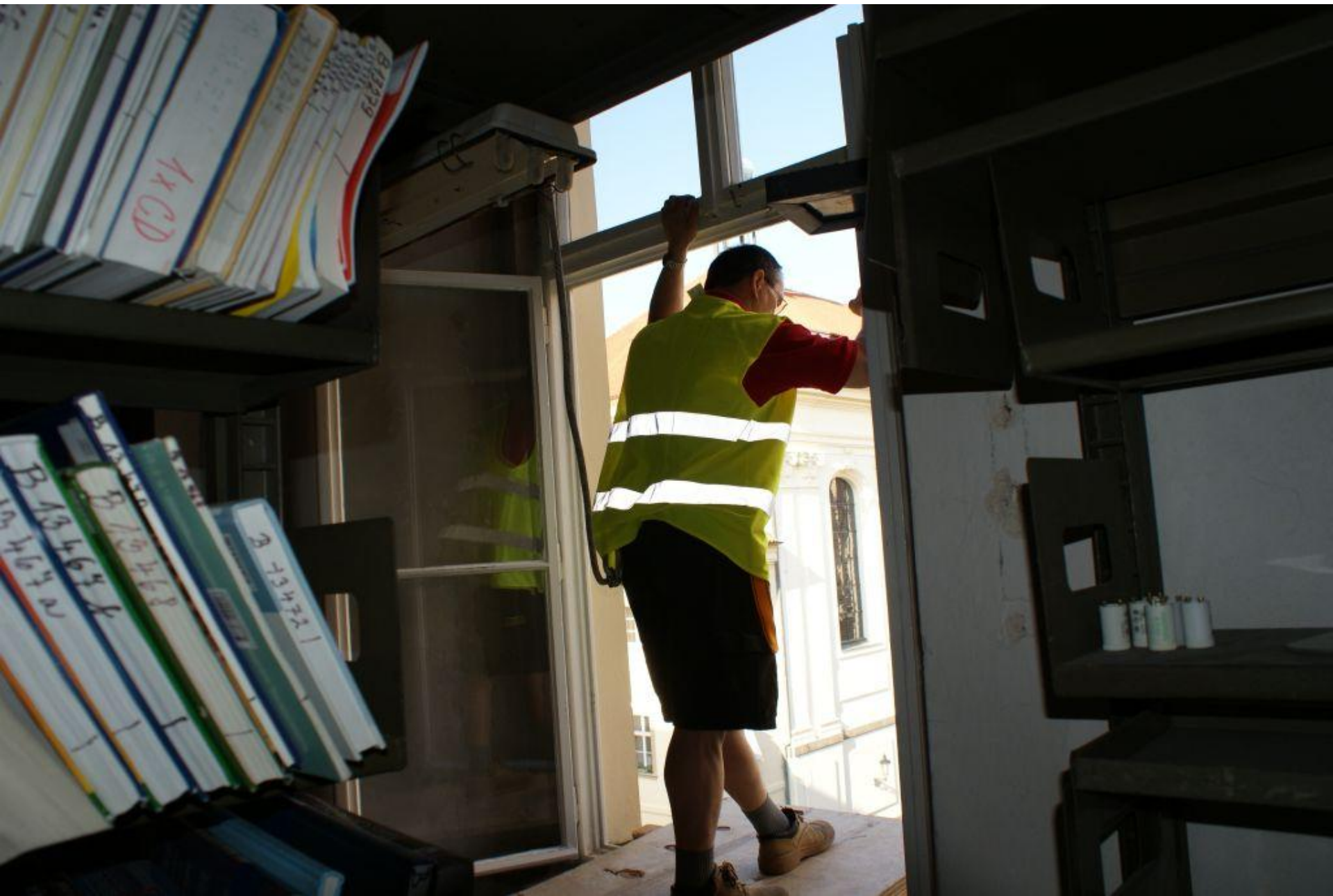
# NTK

50°6'14.083"N, 14°23'26.365"E  
Národní technická knihovna  
National Technical Library











# NTK

50°6'14.083"N, 14°23'26.365"E  
Národní technická knihovna  
National Technical Library





# NTK

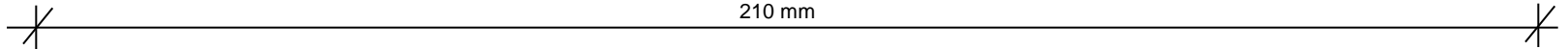
50°6'14.083"N, 14°23'26.365"E  
Národní technická knihovna  
National Technical Library











Thank you for your attention  
Martin Svoboda  
martin.svoboda@techlib.cz

# Sir Tim Berners-Lee

# for Nobel prize !