



# **Adoption of the Eurocodes in Bosnia & Herzegovina**

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# Institute for Standardization of Bosnia and Herzegovina

National Standards Body - public institution

- Institute for Standardization of Bosnia and Herzegovina (BAS) was established as an independent state administrative organization for affairs related to standardization area;
  - Law on Standardization (Official Gazette of BIH No. 19/01)
  - Law on the establishment of Institute for Standardization of Bosnia and Herzegovina (Official Gazette of BIH No. 44/04)
- A non-profit organization, which is funded from the state budget of Bosnia and Herzegovina.



## Memberships of the BAS in international and European organizations for standardization

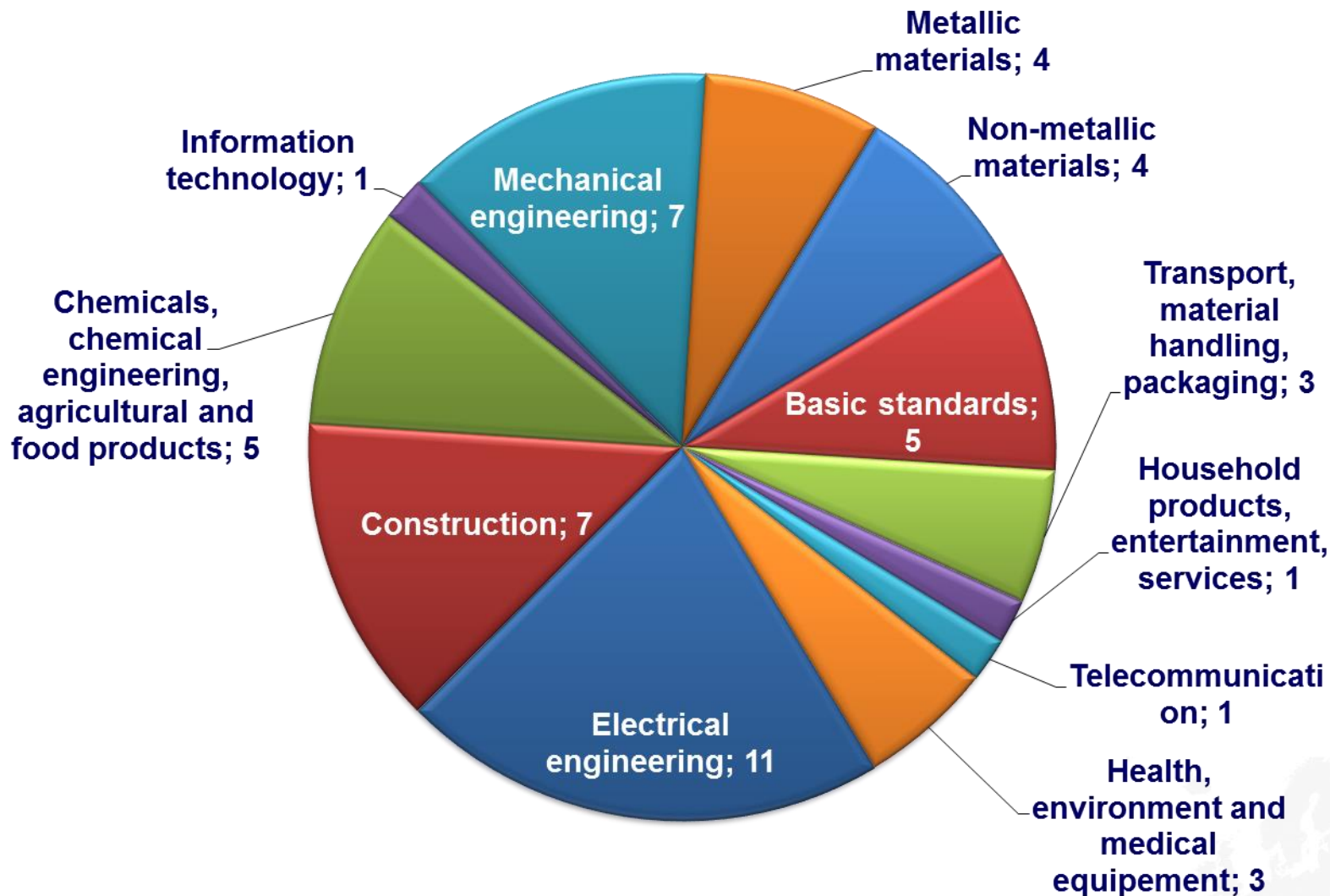
BAS is the representative of Bosnia and Herzegovina in international and regional organizations for standardization.

- Availability of information and documents;
  - The right to participate in the work;
  - The right of acceptance of international/European standards.
- Full member of:  (since 1997) and  (since 1997);
  - Associate member of:  (since 1997);
  - Affiliate of:  ( since 1999) and  (since 2008).



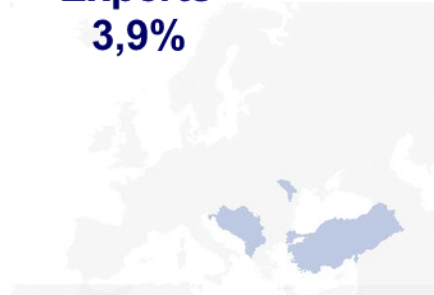
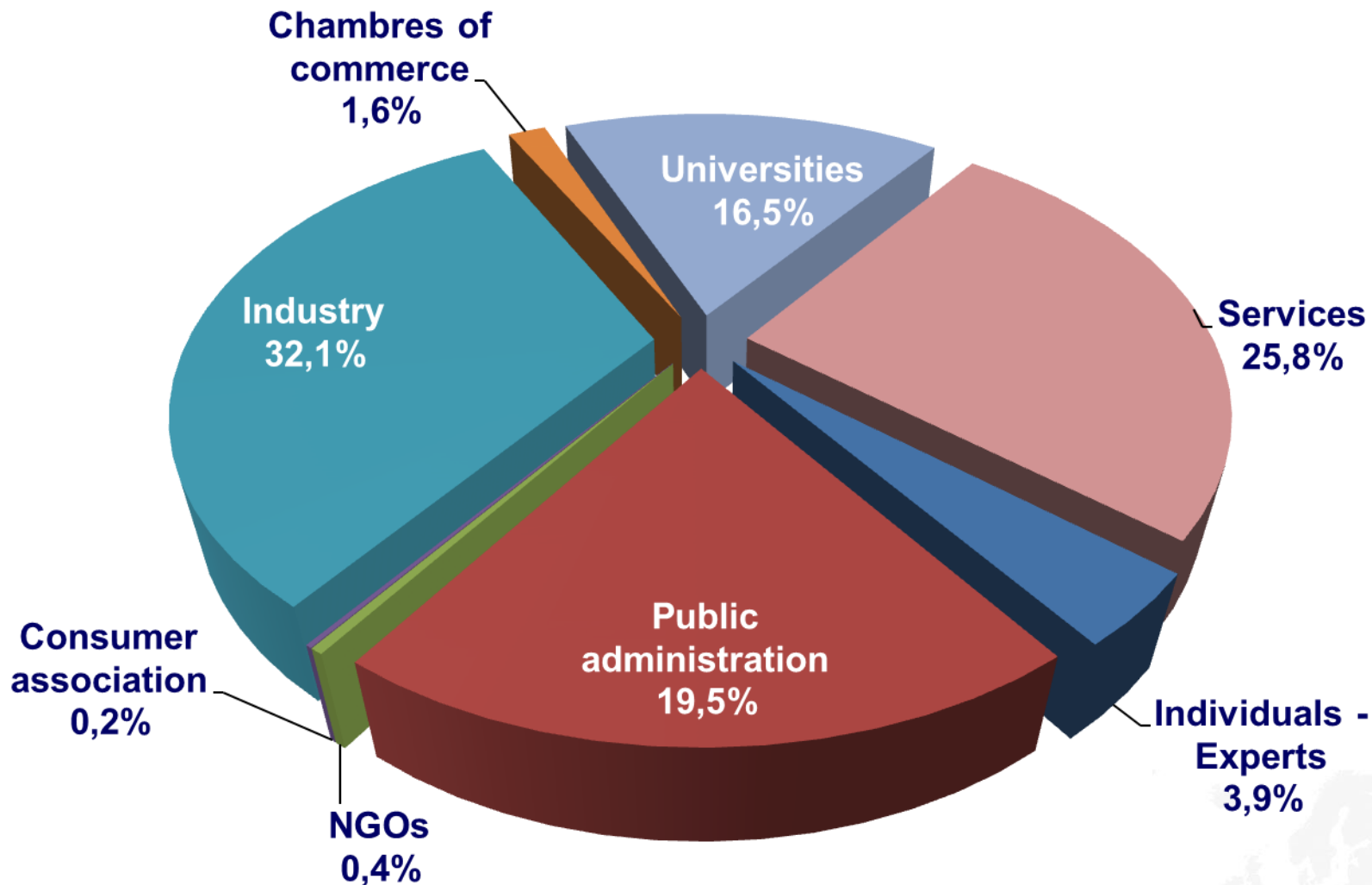
# BAS Technical Committees

# of BAS/TCs differentiated by standardization area



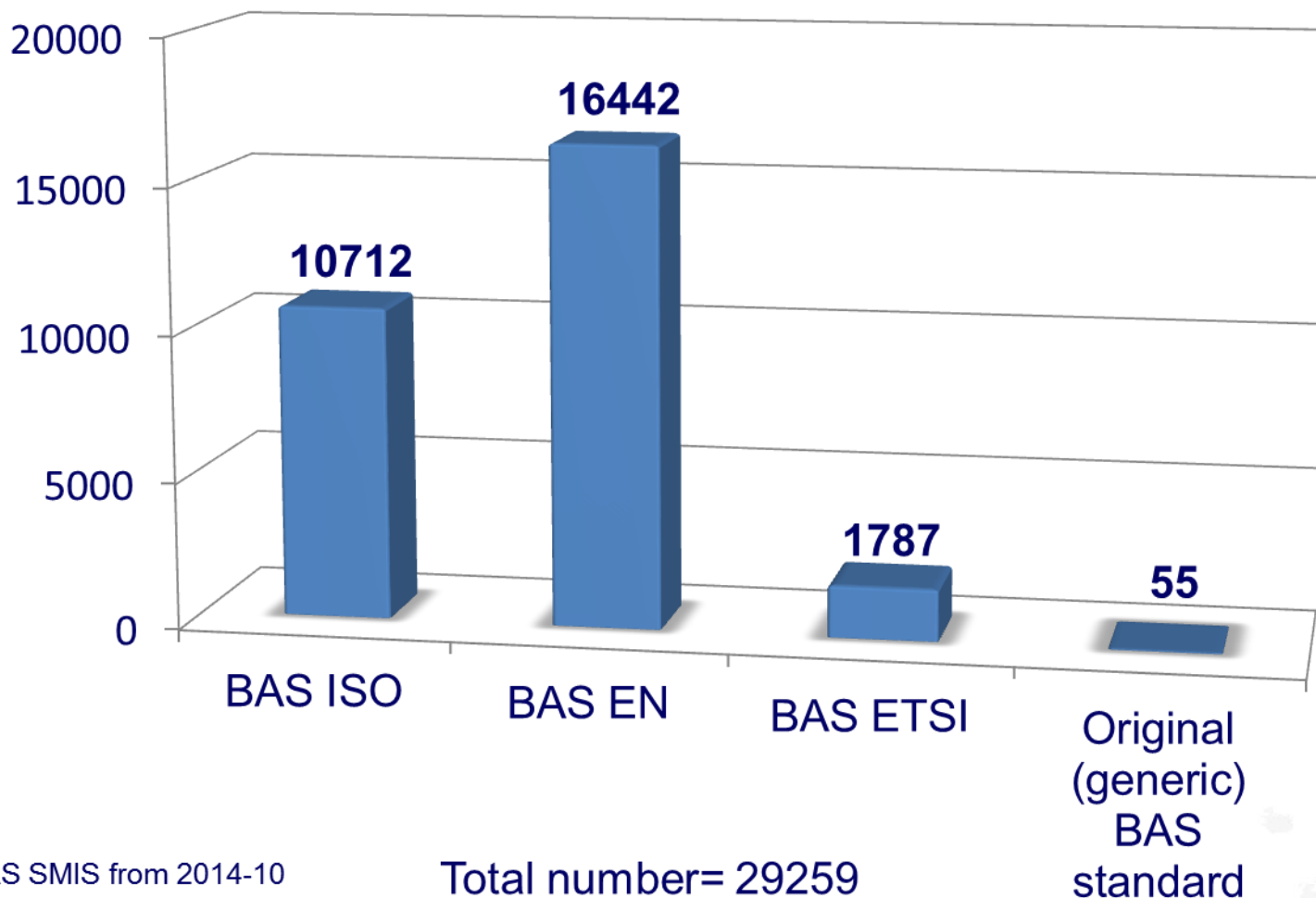
# BAS Technical Committees

## Structure of stakeholders in the work of BAS/TCs



# BAS Technical Committees

## Structure of published BAS standards by the original document



# Eurocodes Adoption Status

- 2003-2013 BAS/TC 21 - Concrete and related products was responsible for the adoption of Eurocodes in BIH;
- All Eurocodes have been adopted by endorsement method;
- None of them was translated and none national annexes have been made;



# Eurocodes Adoption Status

## BAS/TC 58, *Eurocodes*

- NMC to CEN/TC 250
- Established November 28, 2013
- Chairman: Dr. Sanin Dzidic, PE
- Currently 21 members from different sectors and stakeholders; designers, construction industry, universities, research institutions, government representatives...





# Eurocodes Adoption Status

- So far 2 WG:
  - BAS/TC 58/WG 1 - Eurocode 0 (translation)
  - BAS/TC 58/WG 2 - Eurocode 0 (NA)
- Plan of BAS/TC 58, structure 10 WGs for NA
- Decisions:
  - EC be adopted by endorsement method
  - followed by translation into BH languages
  - NAs be published as separate documents



# Eurocodes Adoption Status

- Translation of Guidance Paper L;
- BAS/TC 58/WG 1 - Eurocode 0 has translated the EN 1990;
- On public enquire till December 08, 2014;
  
- BAS/TC 58/WG 2 - Eurocode 0 - NA
- Next meeting November, 2014
  - started research activities
  - Action Plan for development of NA for EN 1990



# Eurocodes Adoption Status

- BAS organized seminar/workshop „*Eurocodes and national annexes*”
- Participants have been members of BAS/TC 58 and experts from Faculty of Civil Engineering (20)
- Seminar was held by the experts from Czech Republic



# Eurocodes Adoption Status

- Seminar September, 2014 covered several topics:
  - Translations of the Eurocodes (principles, roles, responsibilities, challenges, organizational issues and logistics, dynamics, general in Czech Republic);
  - Eurocodes in detail: Eurocodes and their national annexes: Example of Eurocode EN 1990 (in Czech Republic);
  - Eurocodes in detail: Eurocodes and their national annexes: Example of Eurocode EN 1991 (in Czech Republic);



# Specific problems and needs

- Legal limitations
  - Ministry on state level (responsible for Eurocodes and CPR 305/2011);
  - lack of National Documents;
  - mixing of design concepts: Eurocodes and National codes;
- Financing the process of developing, adoption and implementation of the Eurocodes
  - lack of Political and Governmental Support in BIH;



## Specific problems and needs

- Lack of existing research databases - for preparation of NDPs in NA;
- Lack of awareness at the high level;
  - building industry use common (old) testing procedures according to national rules;
  - insufficient capacity (human resources);
  - lack of sufficient number of books and handbooks regularly updated to the issues of Eurocodes in BIH;
  - lack of the continuing education, extra courses and professional development and trainings for application of Eurocodes;



# Plans for further development of Eurocodes

- Translation and adoption of the Eurocodes ( according to the workplan for 2015 of BAS/TC 58 - 10 parts of EN 1991)
- EN 1991, *Eurocode 1 - Actions on structures*
  - EN 1991-1-1, *General actions - Densities, self-weight and imposed loads for buildings*
  - EN 1991-1-2, *General actions - Actions on structures exposed to fire*
  - EN 1991-1-3, *General actions - Snow loads*
  - EN 1991-1-4, *General actions - Wind actions*
  - EN 1991-1-5, *General actions - Thermal actions*
  - EN 1991-1-6, *General actions - Actions during execution*
  - EN 1991-1-7, *General actions - Accidental actions*
  - EN 1991-2, *Traffic loads on bridges*
  - EN 1991-3, *Actions induced by cranes and machinery*
  - EN 1991-4, *Silos and tanks*



# Plans for further development of Eurocodes

- Developing and adoption of NA for EN 1990;
- Starting of necessary actions for preparation of NDPs in National annexes - regarding the EN 1991:
  - new maps for actions on structures:
    - snow load map
    - basic wind velocity map
    - air temperature maps
  - new maps for seismic impact
    - reference return period 475 years
    - reference return period 95 years
- Continuing education of the structural engineers through workshops, seminars, round tables and conferences





# Thank you very much for your attention!



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