



TU1404: Towards the next generation of standards for service life of cement-based materials and structures

Start date: 18 November 2014

Miguel Azenha

TU1404 MC1, COST Office, Brussels, 18 November 2014



AGENDA – Session II

18/11/2014 14:00-17:00

1. General information
2. Proposal / election of Action Positions
3. Grant holder institution
4. Delegations on the Core Group / agreements
5. Expansion of our network
6. Work and budget plan

- Objective of the Action

- Deliverables

- Scientific program

- Group priorities

- Engagement strategy for WG members

- General plan of the Action (application)

- Milestones (application)

- Dissemination activities and rules

- Specific goals and actions for Year 1

- An outlook into upcoming years

- Budget for 2015

- Scientific goals per WG

7. AOB

8. Closing

General Information

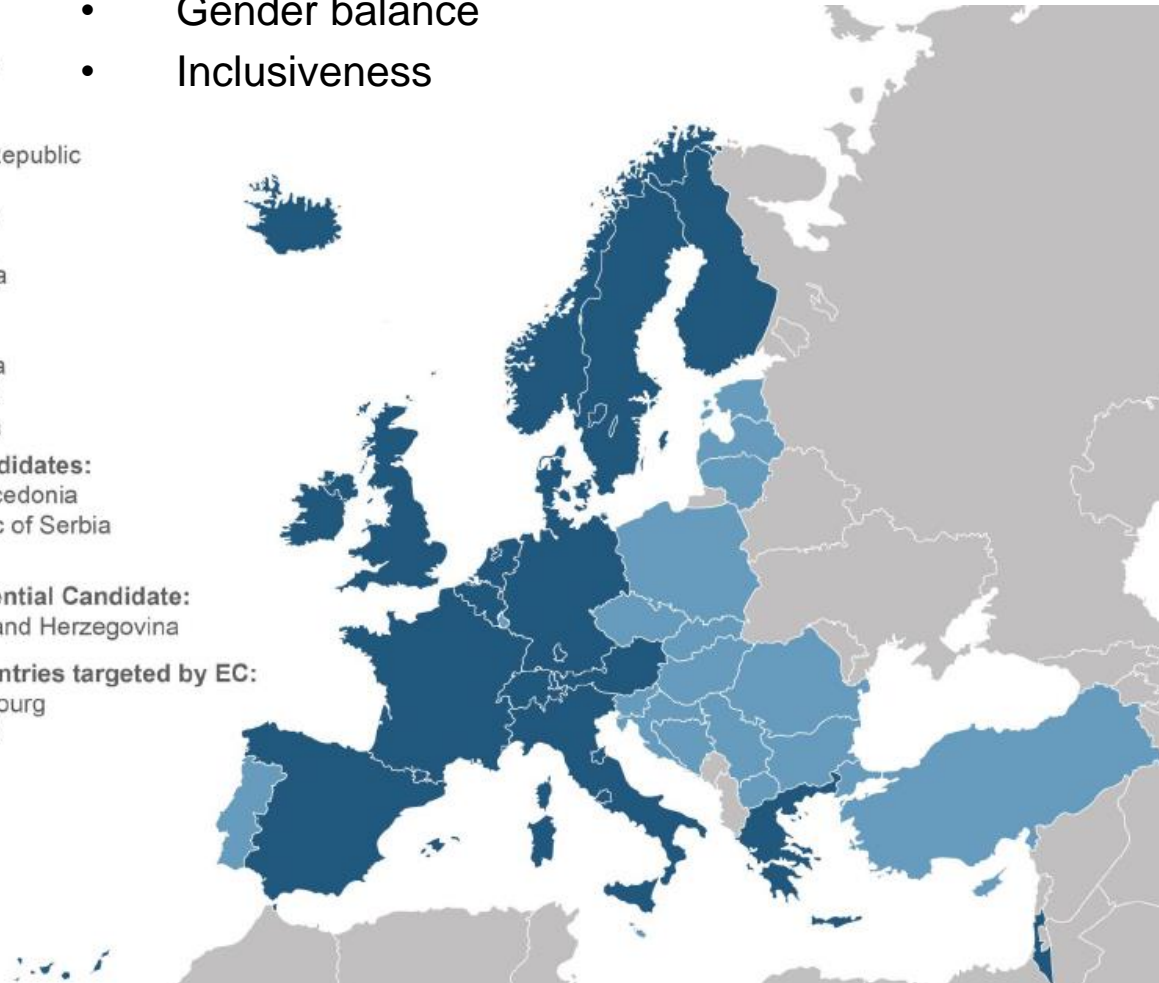
- Thank you and welcome aboard!
- Reminder about cost policies
 - Early stage researchers (less than 8 years after PhD)
 - Gender balance
 - Inclusiveness

● **EU 13:**
Bulgaria
Croatia
Cyprus
Czech Republic
Estonia
Hungary
Latvia
Lithuania
Malta
Poland
Romania
Slovakia
Slovenia

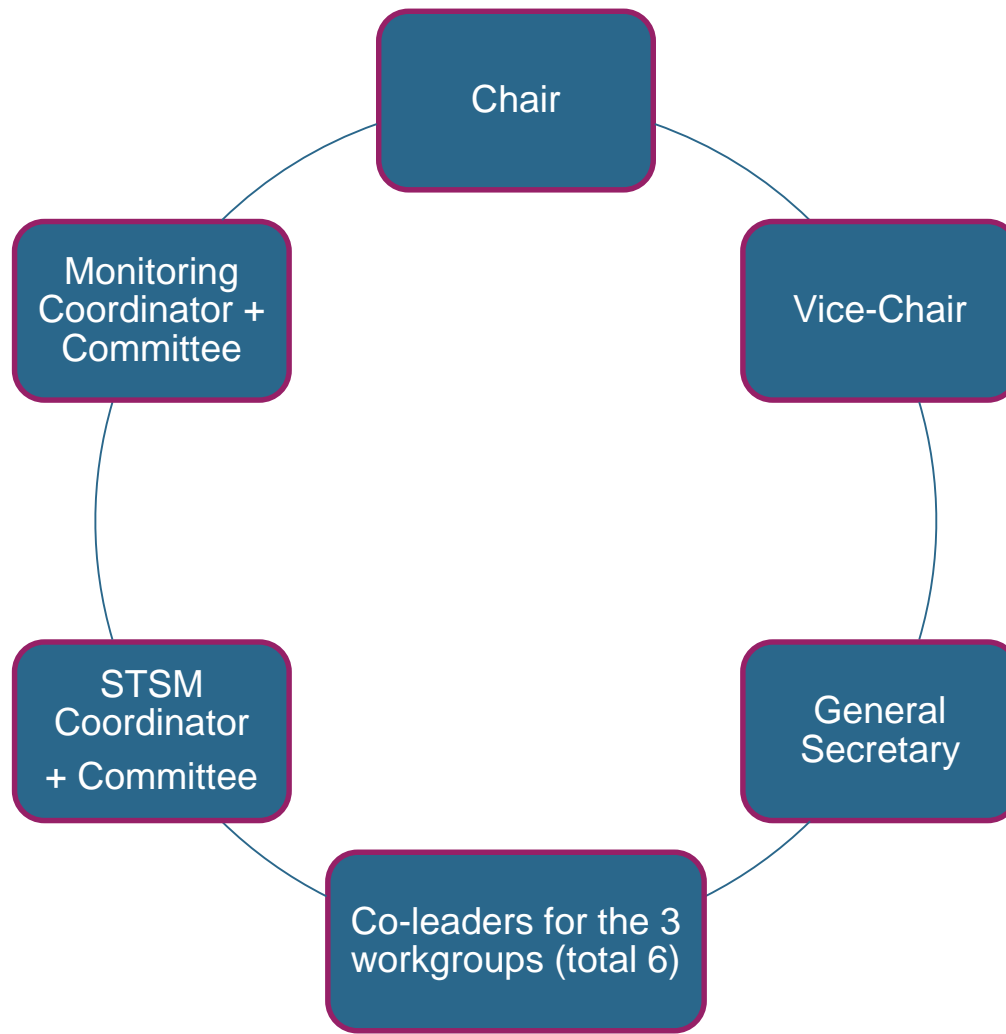
EU Candidates:
FYR Macedonia
Republic of Serbia
Turkey

EU Potential Candidate:
Bosnia and Herzegovina

EU Countries targeted by EC:
Luxembourg
Portugal



Action positions - election



Core group (excluding the STSM committee and all Monitoring members)

Action positions - election

Position	Name(s)
Chair	Miguel Azenha, PT
Vice-Chair	Stéphanie Staquet, BE
General secretary	Dirk Schlicke, AT
WG1	Grega Trtnik, SL Marijana Serdar, HR
WG2	Mateusz Wyrzykowski, CH Farid Benboudjema, FR
WG3	François Toutlemonde, FR Terje Kanstad, NO
STSM coordinator + Committee	Violetta Bokan Bosiljkov, SL
Monitoring coordinator + Committee	Muhammed Basheer, UK

COST Policies: Gender balance, ESR's, Inclusiveness

Grant Holder Institution

Usually coincidences with Chair's institution

Application on behalf of the University of Minho, PT



Aprove FSAC=15% of scientific expenditure

129000€ = 112174€ + 16826€

FSAC – Financial and Scientific Administration and Coordination
(secretariat, non-eligible VAT, general expenses)



Delegations on the core gr

- Approve and select STSM candidates (strategic decision in MC)
- Organizational matters in connection with forthcoming MC meeting
- Changing flat rates of lodging according to destination country
- Allocation of previously approved funds
- Any matters of urgency to be latter sanctioned by the MC

Other agreements

- E-voting issues (7 days except Summer/Easter)
- Time limit for accepting e-COST invitations (two weeks)
- Active scientific participation of all MC members in WGs and Workshops



Expansion of our network

- COST Countries

- Still missing: Bulgaria, Cyprus, Czech Republic, Estonia, Finland, Iceland, Luxembourg, Romania, Slovakia, Sweden, and the former Yugoslav Republic of Macedonia.

- Near Neighbour Countries

- Albania, Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Jordan, Lebanon, Libya, Moldova, Montenegro, Morocco, the Palestinian Authority, Russia, Syria, Tunisia and Ukraine.

- International Partner Countries



Work & budget plan

Objective of the Action

The main objective of the Action is to develop a new generation of guidelines/recommendations to predict/evaluate the service life of cement based materials and structures in Europe by integrating the most recent developments in experimental and numerical approaches, with particular focus on concrete performance since early ages.

- *Mutual validation and benchmarking*
- *Development of new products together with industry partners*
- *Drafting of standardization-targeted documentation*



Work & budget plan

Deliverables

- Knowledge systematization on relative performance of experimental techniques
- Link between new experimental techniques and new numerical approaches
- Development of new products at EU (integrative initiatives Research/Industry)
- Support scientific committees (FIB, RILEM); promote joint research grant proposals
- Guidelines for experimental techniques and numerical modelling
- Intervention on existing regulations issued by CEN (e.g. Eurocodes)
- Dissemination – peer-reviewed papers and industry targeted reports

All deliverables anchored in intermingling and systematization of existing knowledge with potential for new developments

Work & budget plan

Scientific programme



WG1 Testing of cement-based materials

- Properties: fresh, chemical, thermophysical, electrochemical, transport, mechanical
- NDT and continuous measurement capabilities
- Assure Europe-wide acceptance of new methods -> round robin testing
- Property database
- Best practices



WG2 Modelling of CBM and structures

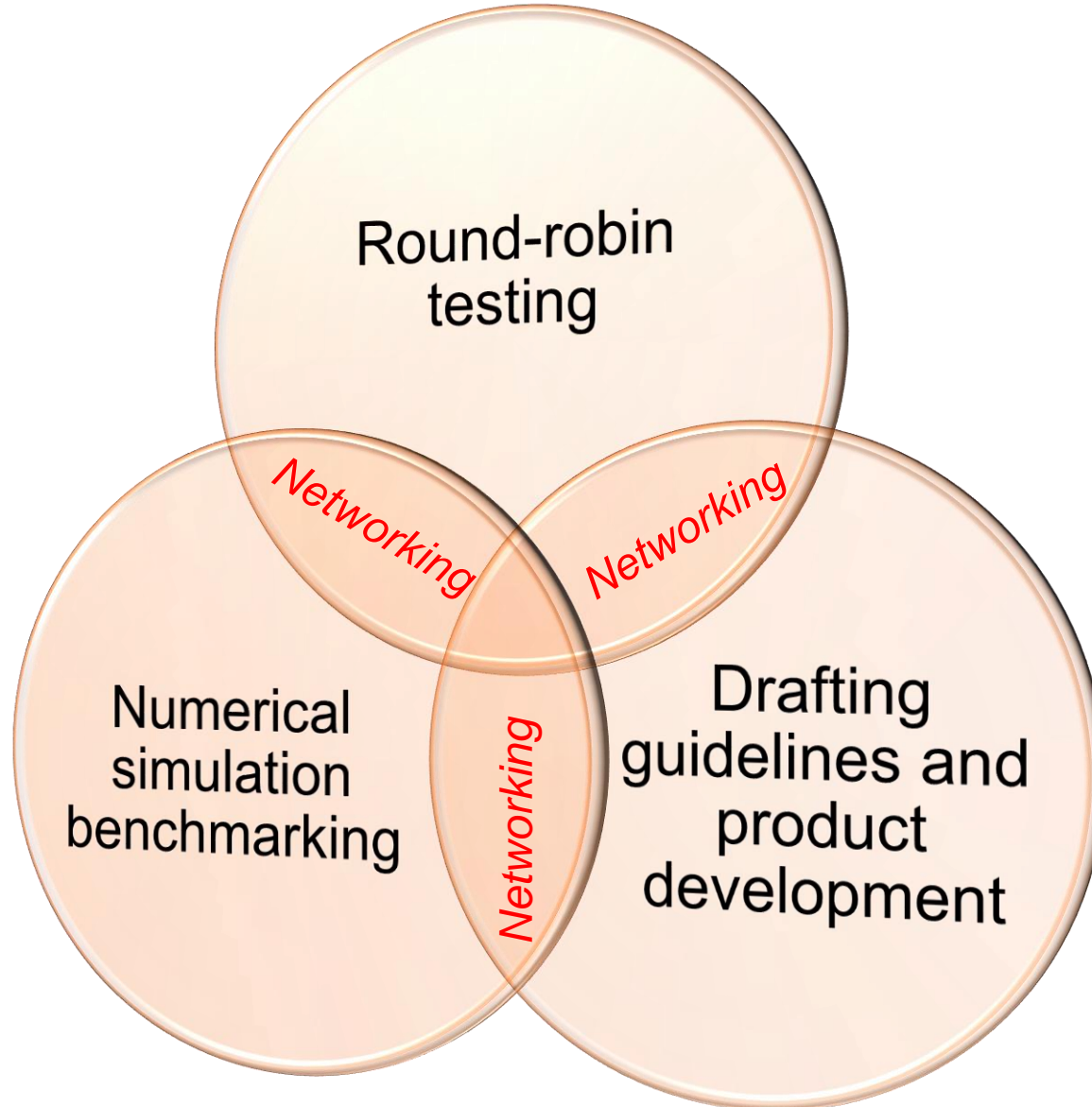
- Multi-physics approaches
- Simplified approaches aimed at design
- Approaches at both material scale and structural scale
- Simulation case-studies and EU-wide benchmarking
- Best practices for modelling assumptions and parameters



WG3 Develop recommendations / products

- Draw guidelines
- Proposals for improving existing standards
- Support the development of new products (experiments, softwares and materials)
- Specific workshops for intermingling researchers and product developers

Work & budget plan





Work & budget plan

Group priorities

WG1 - Testing of CBM

- GP1a - Fresh properties and setting
- GP1b - Chemical and microstructural characterization
- GP1c - Transport properties and boundary effects
- GP1d - Mechanical properties
- GP1e - Volume stability
- GP1f - Fracture properties and cracking

WG2 - Modelling of CBM and the behaviour of structures

- GP2a - Micro-meso-scopic approach
- GP2b - Macroscopic approach
- GP2c – Benchmarking (simple examples; case studies)

WG3 - Development of products and recommendations

- GP3a - Product development for testing and monitoring methods
- GP3b - Product development for software and design methods
- GP3c - Reliability considerations
- GP3d - Recommendations, pre-standard documents and associated coordination

MC members assignment among WGs -> Contact WG leaders (2 weeks)



Work & budget plan

Engagement strategy for WG members

- MC members disseminate nationwide
- Online form calling for experts in view of the objectives of each WG (MC members also fill the form)
- Discussion of form among MC – until 24th November
- Dissemination starts in 1st December to fill within 2014

SHOW TENTATIVE GOOGLE DOC FORM
Coordination assured by the General Secretary

Work & budget plan

General plan of the Action (application)

Activity / Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Meetings	X			X		X		X		X		X		X		X
Workshops				X				X				X				
STSM's	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Training schools								X				X				X
Website updating	X	-	-	X	-	X	-	X	-	X	-	X	-	X	-	X
Conference																X
Milestones	M1	M2		M3				M4				M5				M6

General principles

- SC and MC meetings take place every 6 months (same or sequential days):
- One workshop is held every year (end of each year)
- One Training School is held at the end of each year (except for the first)
- STSMs occur through the entire project
- WG meeting dates coincide with workshops, and SC/MC meetings (to reduce costs)



Work & budget plan

Milestones (application)

MS 1 – Month 1 - All MC, SC, WG and GP leaders assigned

MS 2 – Month 3 – Initiate website, Facebook, Youtube

MS 3 – Month 12 - Workshop
 - Initial launch of RRT; discussion num. bench.
 - At least 4 STSM's launched



Work & budget plan

Milestones (application)

Milestone 4 - Month 24

Main purpose: State of the art report; Yearly workshop

Deliverable(s):

- Report on experimental techniques for CBM properties
- Report on numerical simulation approaches for CBM and structures
- Report on preliminary discussions of pre-draft recommendations.
- Preliminary report on results of round-robin testing of CBM
- Strategies for numerical benchmarking established and launched
- At least 8 STMSs have started
- Workshop
- Training School
- At least two joint applications for EU research funds submitted by team members



Work & budget plan

Milestones (application)

Milestone 5 - Month 36

Main purpose: Discussion of round-robin test and simulation benchmarking; Yearly workshop

Deliverable(s):

- Workshop on experimental testing and numerical simulation of CBM
- Training school
- Report on round-robin test
- Preliminary report on numerical simulation benchmarking
- Report on the progress of pre-draft recommendations
- Plan for final scientific activities aimed at the closure of the Action (e.g. experimental and numerical strategic networking aimed at fulfilling the Action's purposes).



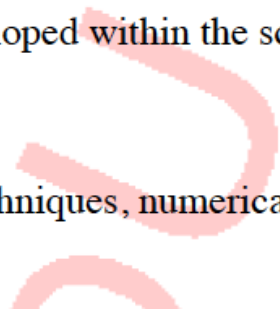
Work & budget plan

Milestones (application)

Milestone 6 - Month 48

Main purpose: Finalization of the Action

Deliverable(s):

- Final conference with focus on the drafted guidelines and reports, as well as the round-robin tests and benchmarking results. A significant part of the conference will be devoted to the Action results themselves.
 - Training school
 - Minimum of two new products ready for the market (developed within the scope of the Action)
 - Minimum of 12 to 16 STSMs finished
 - Final reports
 - Draft of recommendations contemplating experimental techniques, numerical simulations and proposed design rules
- 



Work & budget plan

Dissemination activities (Gen Secretary)

- Website
- Facebook page
- Youtube channel (call for contributions)
- Leaflets / poster
- Dissemination towards women (e.g. high school students)
- E-print repository of COST (COST 4112/13)

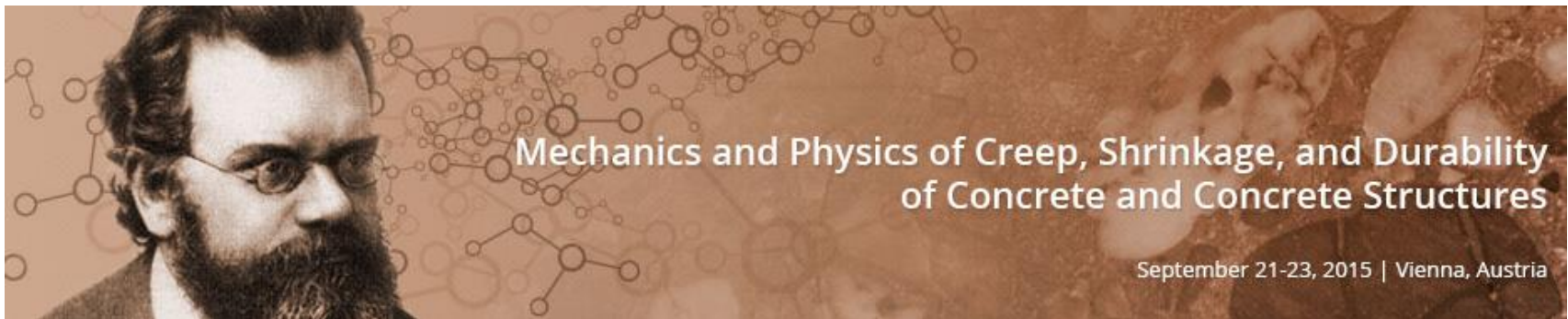
Dissemination rules / agreement

- Dissemination strategy in conferences (e.g. COST logo and TU1404);
- Acknowledgements in papers and reports;
- Leaflet dissemination within each member's institution and in all activities in which the members are involved;
- Direct mention of COST involvement in each member's website, together with links to the COST Action, etc.

Work & budget plan

Specific goals and actions for Year 1

- WS – April – Slovenia (2d)?
(MC meeting not predictable at this stage)
- MC+WS – September – Austria (2d)?
(nomination of local organizers)



MC+WS – 19-20 September + Mini-symposium of TU1404 during the conference

4 STSM's should be started

Work & budget plan

An Outlook into upcoming years

- MSSCE 2016 – Denmark. Agreement on conducting the WS+MC+ training school of 2016 in DTU? (local organizer: Ole Jensen)

www.conferencemanager.dk/MSSCE2016



- Other ideas/proposals?

Work & budget plan

Budget for 2015

A - COST Networking tools	
(1) Meetings	73 674 €
(2) Training schools	0 €
(3) Short term scientific missions	16 000 €
(4) Dissemination, publications	7 500 €
(5) OERSA	15 000 €
B - Total science expenditure (sum 1-5)	112 174 €
C - FSAC (max of 15% of B.)	16 826 €
D - Total expenditure (B+C)	129 000 €



Work & budget plan

Scientific goals per WG

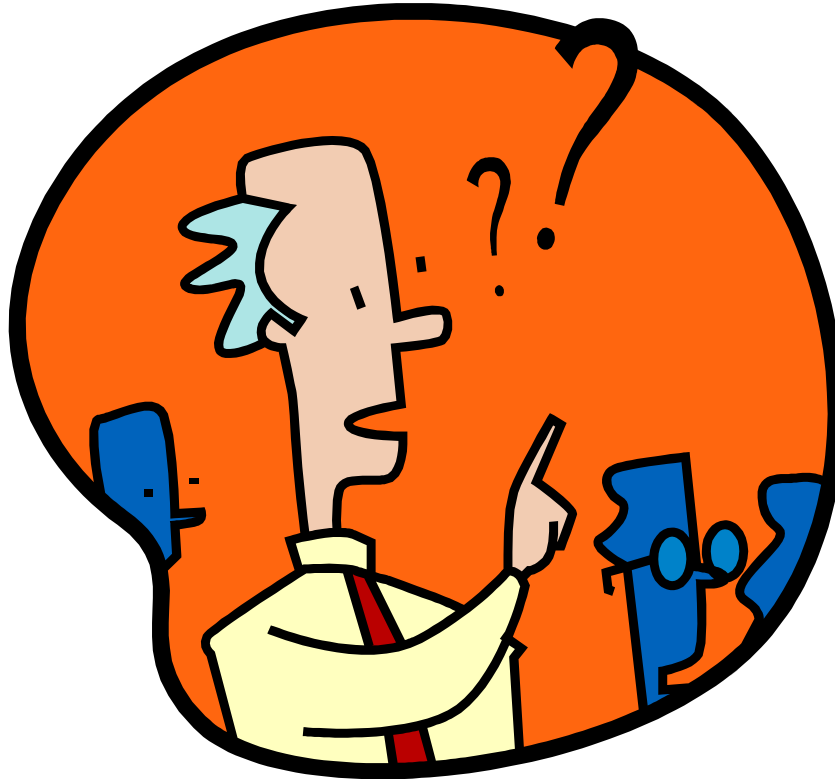
Three short presentations:

WG1 – Grega Trtnik

WG2 – Mateusz Wyrzykowski

WG3 – François Toutlemonde

Any Other Business...





Thank you
