

# T2TRG: Thing-to-Thing Research Group

## W3C WoT: Web of Things

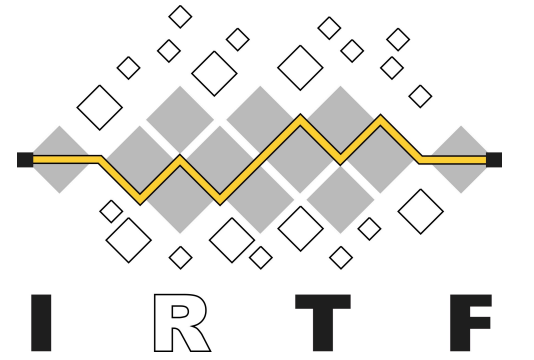
Workshop originally planned for Helsinki, FI, June 2020

T2TRG Chairs: Carsten Bormann & Ari Keränen  
W3C WoT Chairs: Michael McCool, Sebastian Käbisch

# Note Well

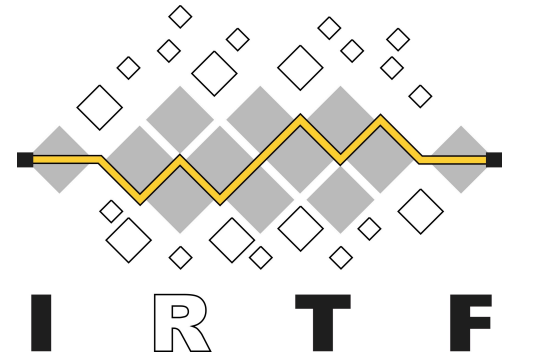
- You may be recorded
- We are nice, accommodating, and professional
- The IPR guidelines of the IETF apply:  
see <http://irtf.org/ipr> for details.

# Note Well – Intellectual Property



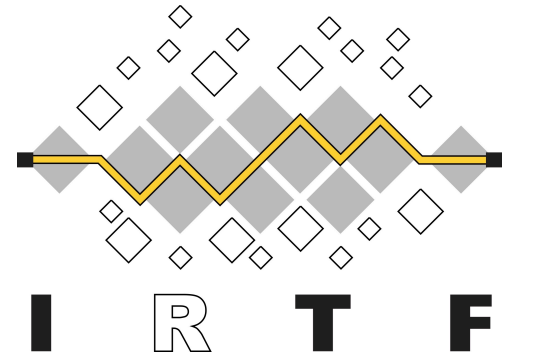
- **The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules**
- By participating in the IRTF, you agree to follow IRTF processes and policies:
  - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion
  - The IRTF expects that you file such IPR disclosures in a timely manner – in a period measured in days or weeks, not months
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  - Definitive information is in [RFC 5378](#) (Copyright) and [RFC 8179](#) (Patents, Participation), substituting IRTF for IETF, and at <https://irtf.org/policies/ipr>

# Note Well – Privacy & Code of Conduct



- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public
- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at <https://www.ietf.org/privacy-policy/>
- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (<https://www.ietf.org/contact/ombudsteam/>) if you have questions or concerns about this
- See RFC 7154 (Code of Conduct) and RFC 7776 (Anti-Harassment Procedures), which also apply to IRTF

# Goals of the IRTF



- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making
- **The IRTF conducts research; it is not a standards development organisation**
- While the IRTF can publish informational or experimental documents in the RFC series, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology
- See “An IRTF Primer for IETF Participants” – [RFC 7418](#)

# Administrivia (I)

- Blue Sheet, Note-Takers:  
<https://is.gd/t2trg202006notes>
- **WebEx:**  
<https://is.gd/t2trg202006webex>
- Mailing List: [t2trg@irtf.org](mailto:t2trg@irtf.org) — subscribe at:  
<https://www.ietf.org/mailman/listinfo/t2trg>
- Repo: <https://github.com/t2trg/2020-06-helsinki>

# Administrivia (II)

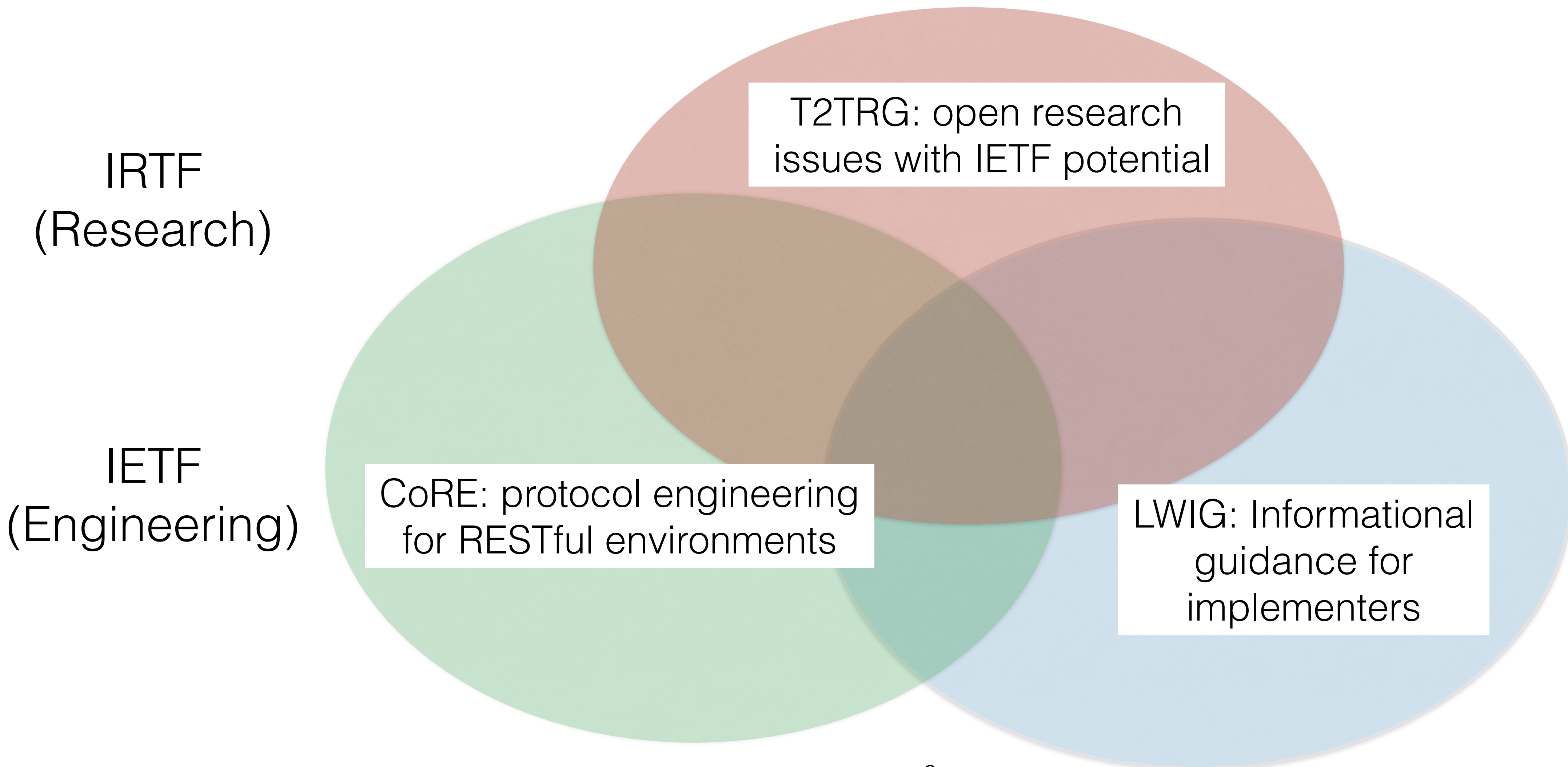
- Halfway break ~1320Z..1340Z
- 1200Z–1500Z = (sorry):  
0500–0800 PDT, 1400–1700 CEST, 2100–2400 JST

# T2TRG scope & goals

- Open research issues in turning a true “Internet of Things” into reality
  - Internet where low-resource nodes (“things”, “constrained nodes”) can communicate among themselves and with the wider Internet
- Focus on issues with opportunities for IETF standardization
  - Start at the IP adaptation layer
  - End at the application layer with architectures and APIs for communicating and making data and management functions, including security



# IRTF and IETF





# Work on IoT Semantic/Hypermedia Interoperability (WISHI): topics

- Modeling data and interaction for IoT
- REST-based hypermedia for IoT

On topic today

- Connectivity for IoT
- In-network and edge computing for IoT
- Security for IoT
- Terminology

# T2TRG and W3C WoT

- One of the goals for T2TRG: facilitate coordination and collaboration between IETF/IRTF and other IoT related organizations
- Long history of common activities with W3C WoT
  - Face-to-face and online meetings
  - Technology development and exploration
  - Tool sharing, common hackathons

Time (UTC)	Subject	Who
1200Z	Welcome, Logistics	Chairs
1210Z	WoT Update	
	Use Case Process and Overview	Michael Lagally
	New Work Items	Michael McCool/ <del>Sebastian Käbisch</del>
1220Z	Lifecycle	Michael Lagally
	Discussion	
1250Z	WoT Discovery	Michael McCool
	Discussion	
1320Z	--- Break ---	
1340Z	WoT PoC Progress	
	Retail	Michael McCool/David Ezell
	Smart City	Michael McCool/Jennifer Lin
1400Z	<a href="#">OneDM/TD Integration</a>	Michael Koster/ <del>Sebastian Käbisch</del>
	TD Templates; Modularity	
	Discussion	
1430Z	<a href="#">Hypermedia Controls in TDs</a> and beyond (+ impact on <a href="#">RESTful design</a> )	Victor Charpenay/Ege Korkan
	Actions and Events, Handling URLs	
	Discussion	
1500Z	Wrapup, end of meeting	Chairs