UPDATE TASK 24

Closing the Loop -

Behaviour Change in DSM: From Theory to Practice

Dr Sea Rotmann and Dr Ruth Mourik ExCo meeting, Utrecht

Netherlands, April 25, 2013

IEA DSM Task 24 participating countries

Swedish Energy Agency

INTERACTIVE INSTITUTE

DuneWorks

zhaw

International Energy Agency

Committee for Energy Research & Technology (CERT)

Oversees 40 int'l implementing agreements

15 Participating Countries

Each country has ExCo member

24 Tasks - each task has Operating Agent/s (OA)

DSM Implementing Agreement (www.ieadsm.org)

Task XXIV: Behaviour Change in DSM (OAs: Ruth and Sea)

Countries participating

Netherlands
Switzerland
New Zealand
Belgium
Norway
Sweden
Finland
Italy
UK
US
Austria
Spain (in kind)

NERI

economie

enova

University of Otago

ULB

NTNU Norwegian University of Science and Technology

IEA DSM Task 24 participating countries

Committee for Energy Research & Technology (CERT)

Oversees 40 int'l implementing agreements

DSM Implementing Agreement (www.ieadsm.org)

15 Participating Countries

Each country has ExCo member

24 Tasks - each task has Operating Agent/s (OA)

Task XXIV: Behaviour Change in DSM (OAs: Ruth and Sea)

Countries participating

Netherlands
Switzerland
New Zealand
Belgium
Norway
Sweden
Finland
Italy
UK
US
Austria
Spain (in kind)

IEA DSM Task 24 participating countries

15

Eac
me

24
Op

Task XXIV: Behaviour Change in DSM (OAs: Ruth and Sea)

Countries participating

Finland
Italy
UK
US
Austria
Spain (in kind)

IEA DSM Task 24 participating countries

Swedish Energy Agency

INTERACTIVE INSTITUTE

DuneWorks

zhaw

ULB

NTNU
Norwegian University of Science and Technology

15

Eac
me

24
Op

Task XXIV: Behaviour Change in DSM (OAs: Ruth and Sea)

Countries participating

Finland
Italy
UK
US
Austria
Spain (in kind)

deliverables

- D0: Advisory committee of stakeholders from ExCo, IEA, research, commercial, community, policy and end user sectors providing strategic guidance.
- D1: Social platform and meeting place for DSM and behaviour change experts and implementers. Will include wide range of social media tools to foster greatest ability to interact, share and discuss. 'Matchmaking' service to enable trans-national, inter-disciplinary teams of experts and end users to collaborate and bid for funding.
- D2: Database and/or Wiki of all collected case studies, best practice, models, frameworks, definitions, contexts, evaluation metrics, references etc.
- D3: Surveys and post-evaluation of detailed case studies in priority areas.
- D4: Tool to evaluate 'successful outcomes' for variety of stakeholders (political, policy, community, industry, end user).
- D5: To do's and not to do's, priority research areas and ideas for pilots and projects for participating countries and stakeholders.

objectives in last 6 months

1. **Subtask I - Helicopter Overview**:

- Overview of definitions used in Subtask I including how they were derived
- Templates to collect models and case studies completed and filled in by national experts
- Inventory of models, countries and domains that were collected
- Framework to categorise templates adapted from Chatterton and Wilson (2011)
- Wiki to collect and analyse templates
- Interviews with energy professionals telling their 'energy stories'
- Energy stories from participating countries
- 2 national Workshops to continue discussion on models of understanding behaviour

2. **Subtask V - Expert Platform**:

- Continued growth of experts to the platform
- Utilisation of platform, including uploading all content from workshops and Subtasks
- Connect Wiki to platform
- Foster engagement and 'matchmaking' among experts
- Stakeholder engagement plan
- Publicising of Task 24

3. **Subtask 0 - Administration**:

- Advisory Group invitations sent out
- ExCo meetings and report-back
- National expert workshops and webinars

the last 6 months: publications

Task 24 Publications, presentations and reports

- IEA DSM Spotlight 48 Issue - on Dutch workshop
- IEA DSM Website Task 24 (updated)
- EEIP Magazine (column on corporate behaviour)
- Sea Rotmann interview with energynet.de (podcast)
- Sea Rotmann eceee column (on difficulty of doing good energy efficiency policy #2)
- Sea Rotmann Global Energy Professionals blog (Why is energy efficiency so unsexy?)
- New merged Template for Models of Understanding Behaviour and Theories of Change via use of actual case studies (template)
- Inventory of models/countries/case studies (wiki table)
- Overview of definitions and how they were derived for Task 24 (powerpoint)
- New IEA DSM Task 24 Pecha Kucha presentation (powerpoint/film)
- Pecha Kucha presentation NERI workshop 'Why is energy efficiency so damn unsexy?' (powerpoint)
- NERI Task 24 presentation (powerpoint)
- Task 24 presentation at IEA Secretariat Roundtable in Paris (powerpoint)
- 21 new Interviews of experts' own energy stories (film)
- New Zealand's Energy story (powerpoint/film)
- UKERC Meeting Place report of Oxford workshop (report)
- NZ stakeholder analysis (report)
- NZ sector energy stories - industry, research, government (powerpoint/film)
- 3 NZ and 1 Dutch case study (powerpoint)
- Models of Understanding - definitions (powerpoint/film)
- Implementation Bloopers in Policy (powerpoint/film)
- Feedback from NZ Workshops on behaviour change problems in from 3 stakeholders' perspective (film/notes)
- Feedback from Dutch Workshop on reasons DSM programmes failed (powerpoint)
- eceee Summer Study peer-reviewed paper (scientific publication)
- What is Evolutionary Psychology (presentation in Dutch)

energy stories: personal

IEA DSM Task 24 Energy Stories: Gerri Ward

Sea Rotmann · 24 videos

Channel settings

1 view

0 0

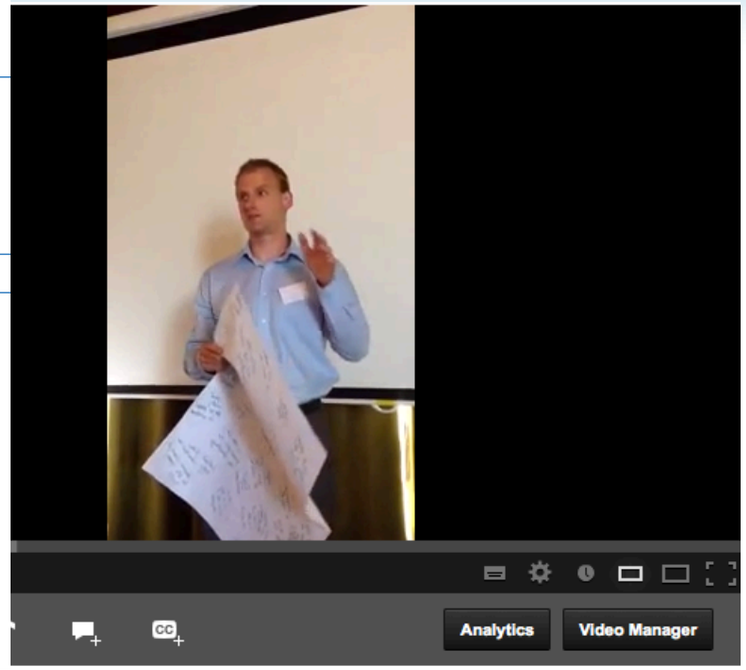
Janet Stephenson interview

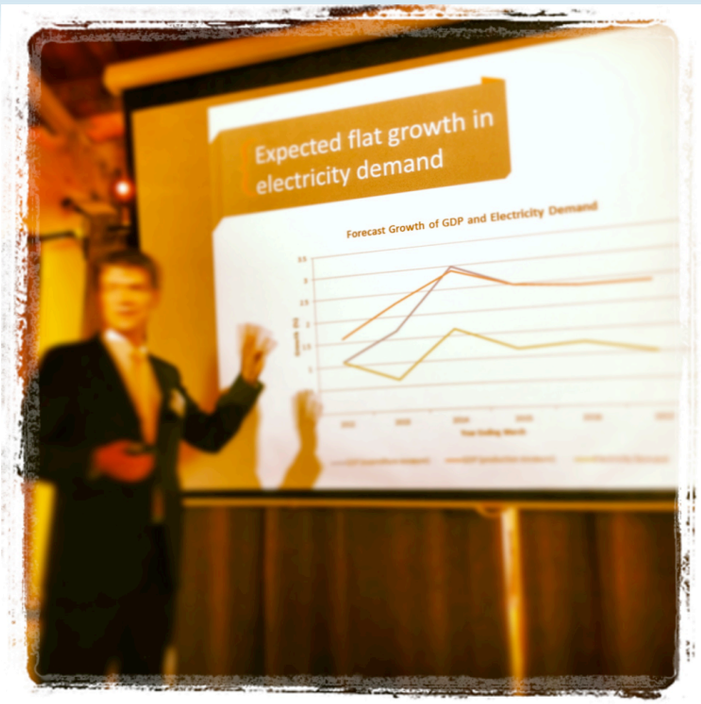
Sea Rotmann interview

energy stories: sectoral

Fuel efficient driving behaviour in the light vehicle fleet

15 February 2013 | Jörn Scherzer | Transport Partnerships





Jörn Scherzer on transport issues

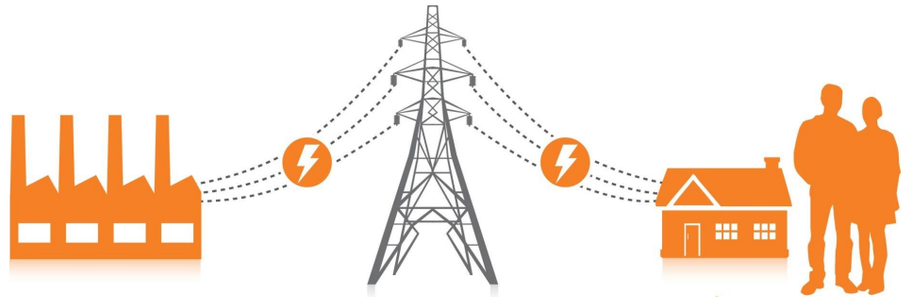
UNIVERSITY of OTAGO
Te Whare Wānanga o Otāgo
NEW ZEALAND
SAPERE AUDE

Re-orient OURSELVES

genesis ENERGY

Energy Behaviour Challenge 1

Changing household energy cultures
A research perspective



energy stories: national

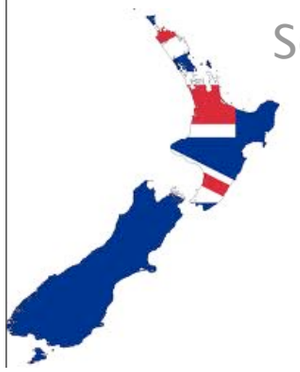
IEA DSM – Task XXIV

Belgian Story

Brussels, September 7, 2012

demand-side

The New Zealand energy story



Sea Rotmann and Janet Stephenson

University of Otago
Te Whare Wānanga o Otāgo
New Zealand

social media in Task 24

@IEADSM
@DrSeaRotmann

IEA DSM facebook Group

IEA DSM LinkedIn Group

Expert platform:
www.ieadsmtask24.ning.com

Task 24 Wiki:
www.ieadsmtask24wiki.info

IEA DSM website:
www.ieadsm.org

Behaviour Change & Energy News

www.youtube.com/IEADSM

Pearltree: drsearotmann

Instagram: drsea77

Storify: DrSeaRotmann

Dropbox

capsule

WordPress

anymeeting

the last 6 months:
workshops & conferences

Date	Place	Total # Experts	# of countries	Type of meeting	Government	Business and NGO	Academic
12/11/12	online	6	5	Expert Webinar		2	4
20/12/12	Utrecht, NL	22	1	Stakeholder Meeting NL	1	14	7
7/2/13	online	6	5	Expert Webinar		2	4
15/2/13	Wellington, NZ	50	4	Expert Workshop	15	15	20

the last 6 months:
workshops & conferences

Date	Place	Total # Experts	# of countries	Type of meeting	Government	Business and NGO	Academic
12/11/12	online	6	5	Expert Webinar		2	4
20/12/12	Utrecht, NL	22	1	Stakeholder Meeting NL	1	14	7
7/2/13	online	6	5	Expert Webinar		2	4
15/2/13	Wellington, NZ	50	4	Expert Workshop	15	15	20

Date	Place	Total # Experts	# of countries	Type of meeting
17/12/12	Wellington, NZ	10	1	Stakeholder update NZ Government
13-14/2/13	Wellington, NZ	100+	6	National Energy Research Institute conference ‘Energy at the Crossroads’
13/3/13	Paris, FR	30+	28	Presentation to IEA Secretariat Behaviour Workshop 'Choices, Decisions and Lifestyles Roundtable'

deliverables - update D0

- D0: Advisory committee of stakeholders from ExCo, IEA, research, commercial, community, policy and end user sectors providing strategic guidance.

Invitations sent to following people:

IEA DSM: Rob KOOL, NL

IEA Secretariat: Sara PASQUIER, FR

Research: Skip LAITNER, US

Industry: Hans de KEULENAER, European Copper Institute, BE

Consultancy: Rod JANSSEN, Energy in Demand, FR

Government: Adam COOPER, DECC, UK

Local Government: Anthony van de VEN, Eindhoven Municipality, NL

Technology Developer: Tom LEYS, Gridspy, NZ

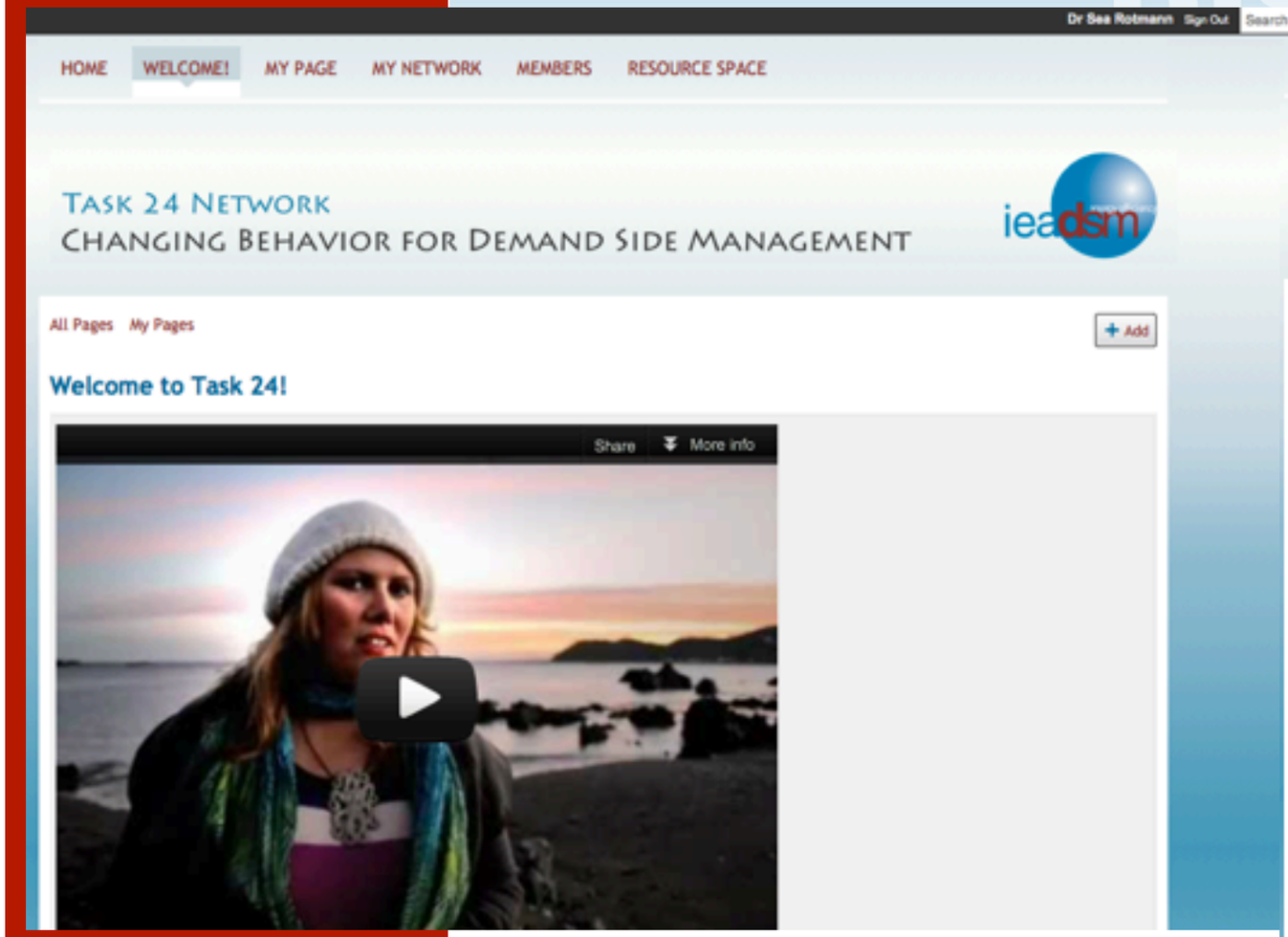
Social Media: Dusan JAKOVJLEVIC, EEIP, BE

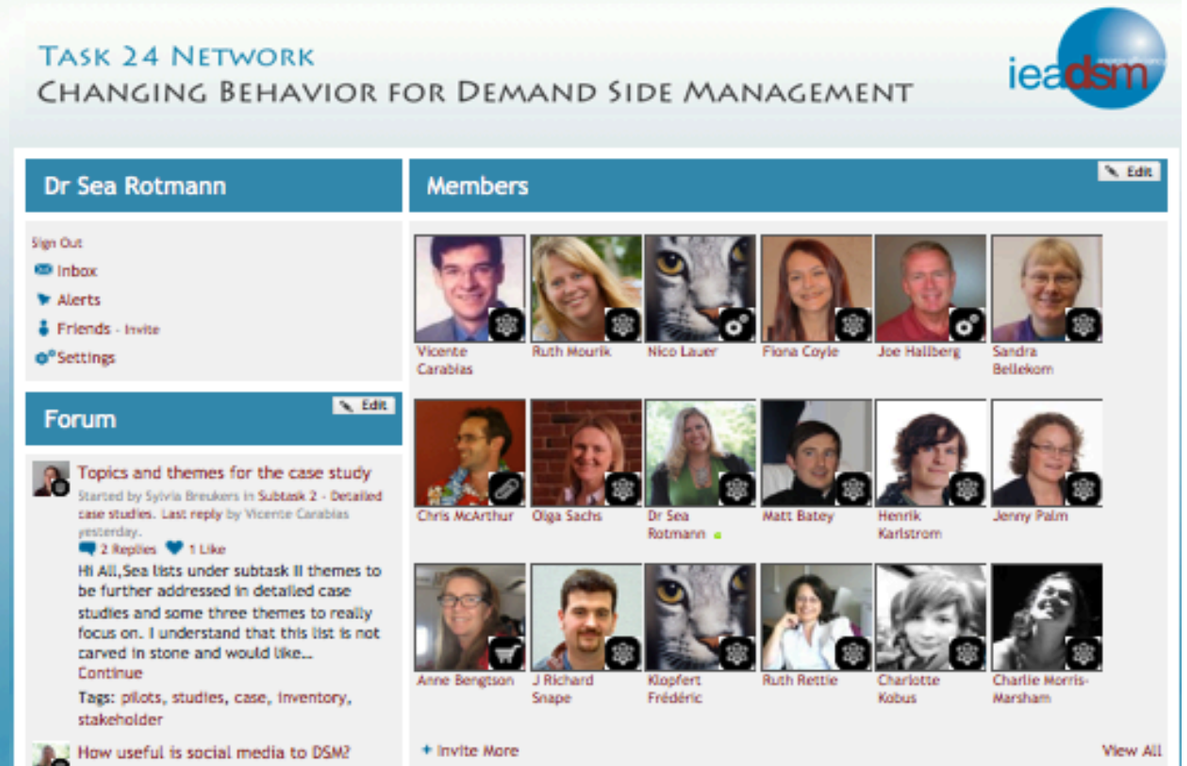
NGO: Nils BORG, ECEEE, SE

Utility: Scott NEUMAN, Opower, US

1st virtual meeting proposed September: to feedback on results from Subtask 1

D1: subtask V - expert platform

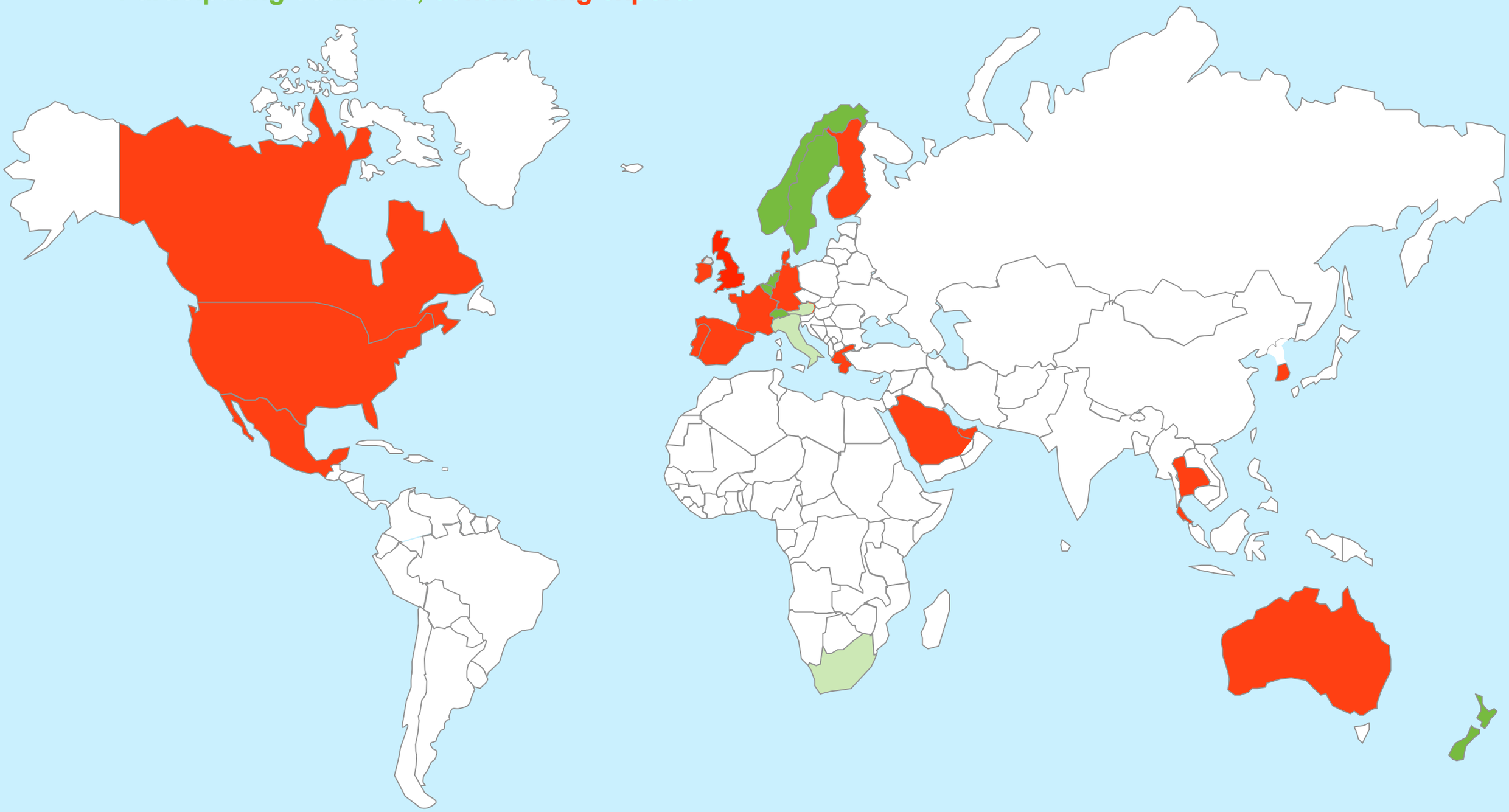




- 70 videos
- 59 photos
- 3 blogs
- 12 events
- 18 discussion fora
- 2 member groups

World Map of

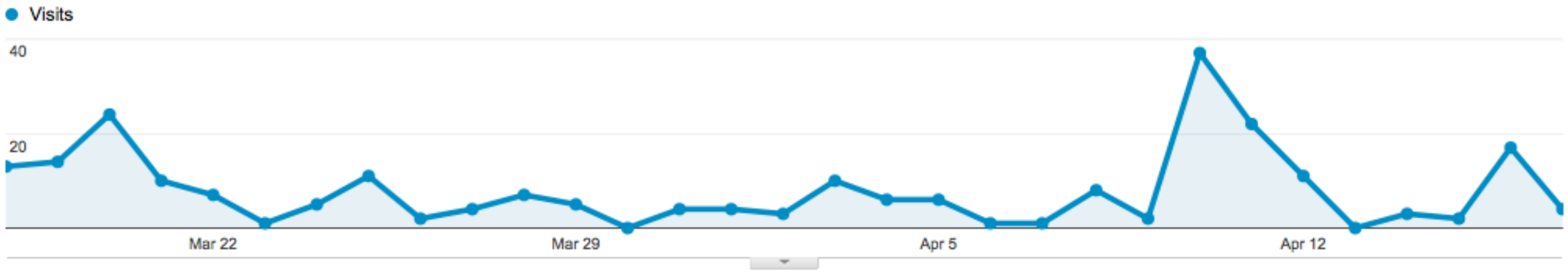
Participating countries, contributing experts



Expert platform currently has over 150 experts from 20 countries and 7 main sectors.

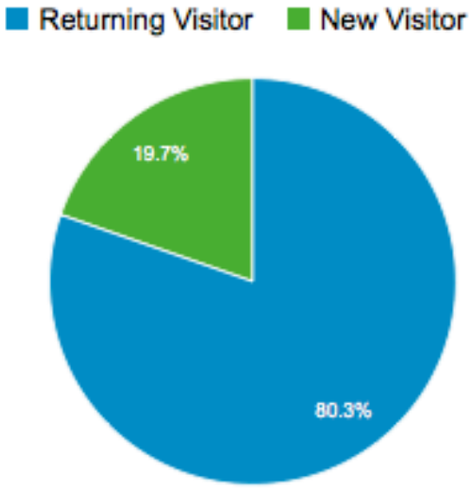
Visits vs. Select a metric

Hourly | Day | Week | Month



69 people visited this site

Visits	244
Unique Visitors	69
Pageviews	1,383
Pages / Visit	5.67
Avg. Visit Duration	00:05:50
Bounce Rate	48.36%
% New Visits	19.67%

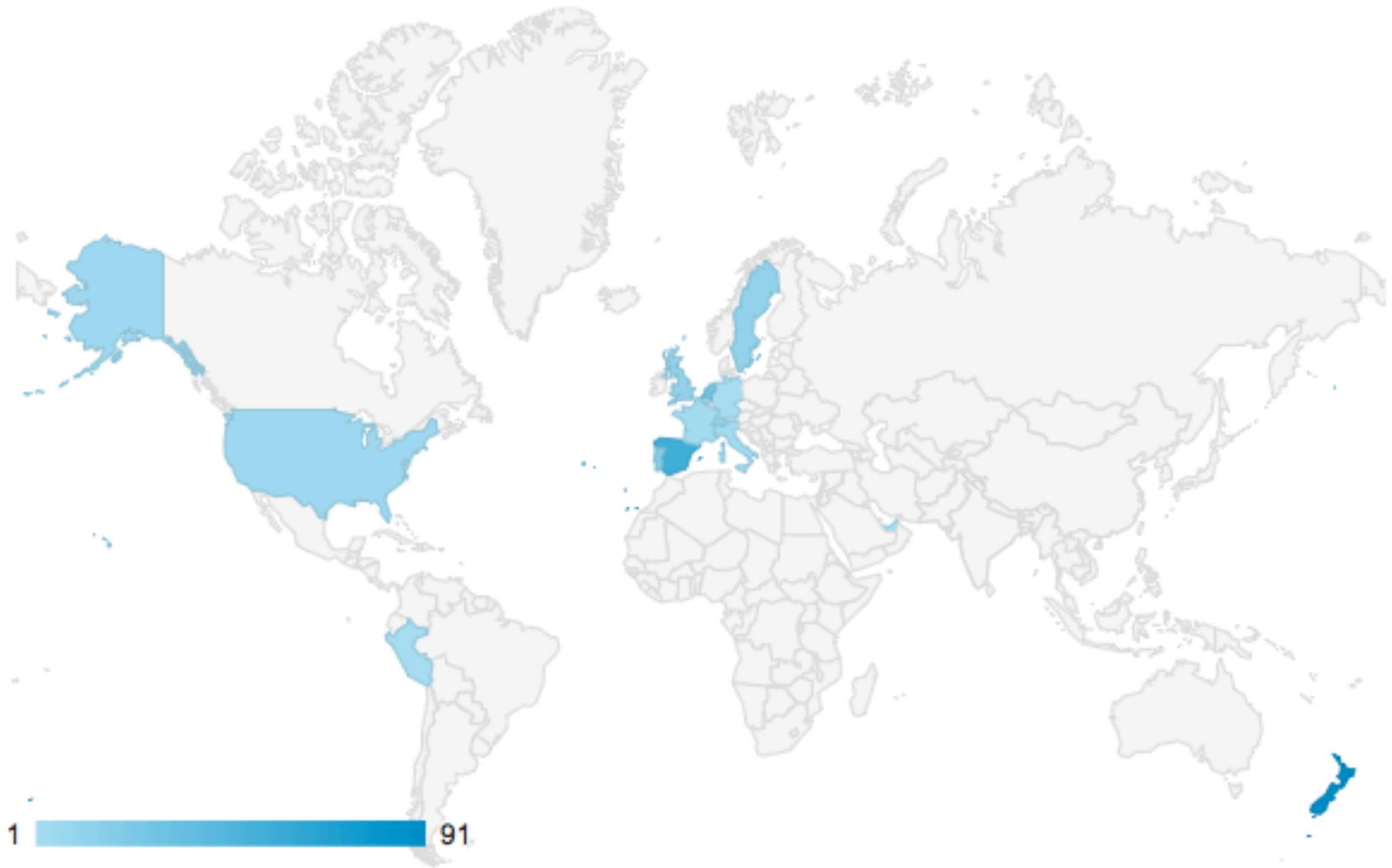


Visits vs. Select a metric

Hourly | Day | Week | Month

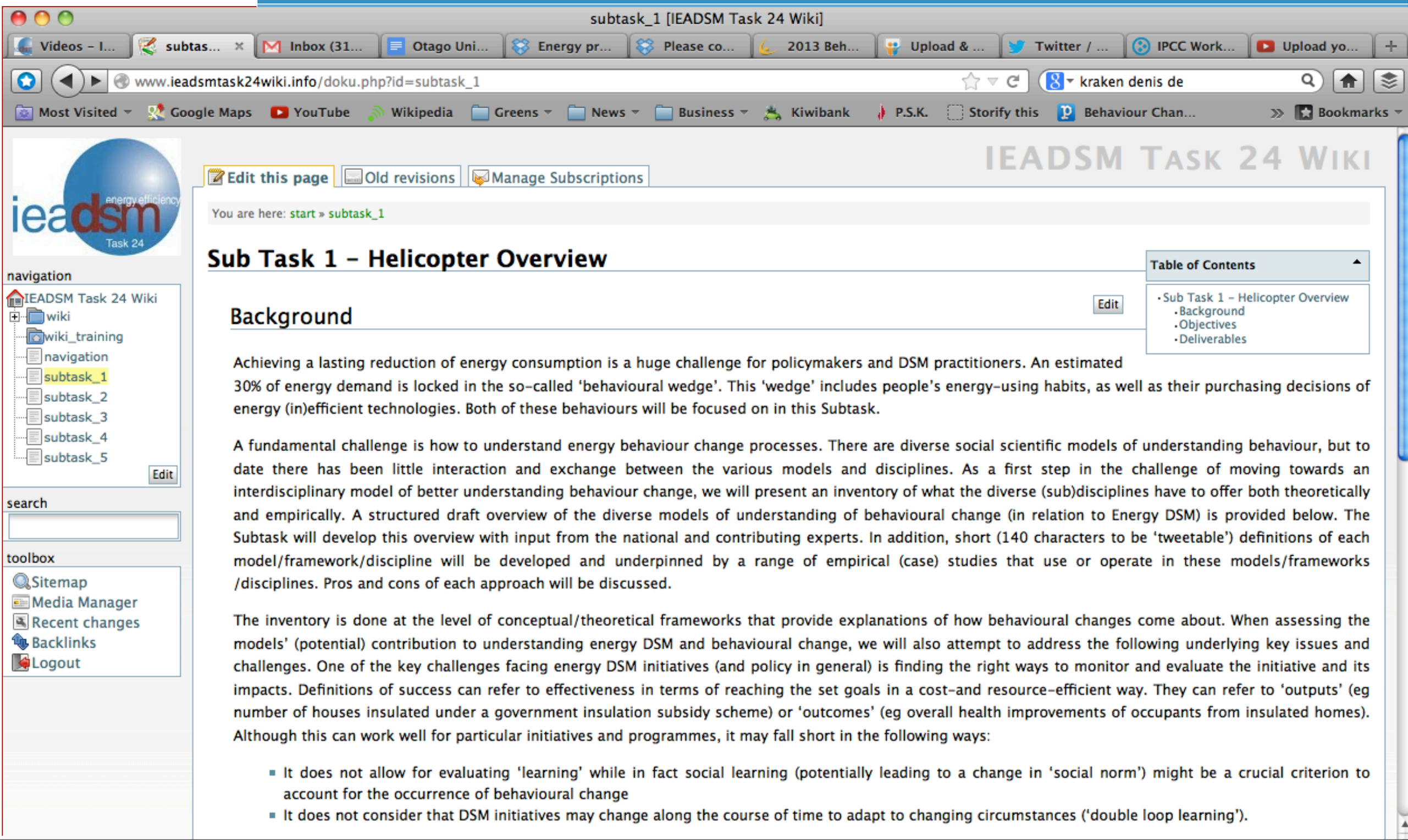
69 people visited this site

Visits

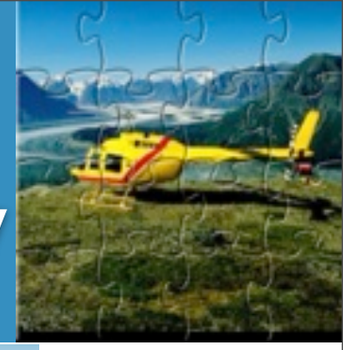


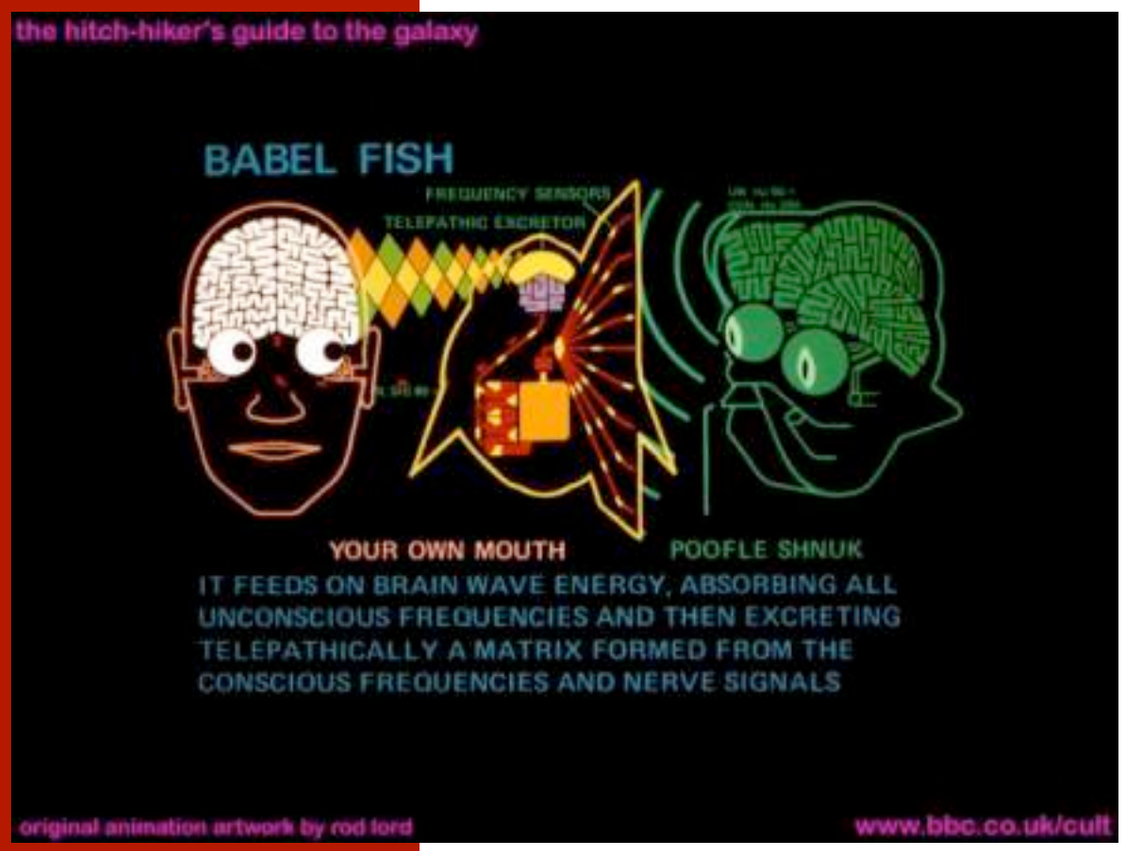
Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
244	**5.67**	**00:05:50**	**19.67%**	**48.36%**
% of Total: **100.00%** (244)	Site Avg: **5.67** (0.00%)	Site Avg: **00:05:50** (0.00%)	Site Avg: **19.67%** (0.00%)	Site Avg: **48.36%** (0.00%)

D2: Task 24 Wiki



subtask I - Helicopter Overview





- Overview of models, theories, frameworks used in case studies
- Overview of definitions
- Inventory of experts
- Inventory of evaluation metrics and contexts
- Navigation tool to translate theory to be useful by practitioners

worked examples in Task 24

Case studies collected for IEA DSM Task 24 in transport, building retrofits, SMEs and smart metering Note: Blue boxes denote government-led policies and programmes, green boxes denote business, research or community-led programmes and pilots

Domain/Country Cases and used theories/models	Netherlands	New Zealand	Switzerland	Italy	Austria	Norway	Sweden	Belgium	UK	Other countries
Smart Metering	**Jouw Energie Moment** Theories/Models used: Expectancy Value Theory Design with Intent Interpretation for sustainable behaviour	**Responses to Time Varying Prices for Electricity** (Otago Uni) Theories/Model used: Classical Economics and marketing	**Smart Metering Zurich Pilot EWZ and EKZ** Theories/Model used: behavioural economics and social norms/comparisons	**Time of Use Tariff** Theories/Models: Classical Economics		**Demosteinkjer** Theories/Models: Theory of Planned Behaviour	**Clockwise** Theories/Models: Constructivist Learning Theory Shared learning		Rettie, Ruth **CHARM** Theories/Models used: social norms approach practice theory	Spain (Juan Pablo Garçia): **VERDIEM** Theories/Models: Classical Economics
			Smart Metering EKT Dietikon Theories/Model used: behavioural model of residential energy use by Raaij & Verhallen behavioural economics and social norms/comparisons							Portugal (Joane Abreu): Smart meter feedback in North Theories: Nudge, classical economics, moments of change
			Munx Repower website Theories/Model used: behavioural economics, social norming							
Retrofitting	**Blok voor Blok aanpak, retrofitting programme** Theories/models used: Behavioural economics	**Warm Up New Zealand: Heat Smart** Theories/Models used: social marketing; social norms; classical economic; TPB	**Swiss Building Retrofit Program** Models: Classical Economics			**Retrofitting of Myhrenenga Housing** Theories: TPB				
		Kapiti Coast Eco Advisors: Home Energy Advice Theories/Models: based on TPB	2000 Watts Society (housing) Models: Ethics, long-term visioning							
SMEs	To be decided upon	**Energy Cultures in SMEs** Theory/model used: Energy Cultures Interpretative qualitative research	**Energy-Model and SME-Model from (EnAW)** Theories/Models used: Classical Economics Social norm					**Build4Change** Model: Nudge		
		EECA SME Crown Loans Scheme Theory/model used: originally based on TPB; changed to social learning and social norm theories								
Mobility	**Het Nieuwe Rijden (the New Driving)** Theories and models used: Psychology: Henry A Murray (1938) and the acceptability/availability model of behaviour by Rose (1990).	**Active a2b** Theory/models used: Norm Activation Theory Elaboration Likelihood Model Stern's Principles for Intervening Triandis TIB Lewin's Unfreezing/Refreezing McKenzie-Mohr	**2000 Watt on mobility** Models: Ethics, long-term visioning				**Stockholm congestion tax** Models: activity based models		Chatterton & Wilson Framework Combining individualistic (eg Triandis) and societal (Practice theory) approaches to help UK policymakers	Kevin Luten UrbanTrans (Australia) Transport behaviour change based on BJ Fogg
		NZ Post Transport Driver behaviour training Theory/models used: Value Action Gap Theory	**Fuel consumption of newly purchased cars** Theory of Planned Behaviour (TPB) and Norm-Activation Model (NAM)							
		EECA Driver Behaviour Pilot Theory/Models used: in development, but several behavioural economics and social psychology models								

some of the best cases

TRANSPORT: The New Driving, Netherlands

Models used: Psychological models

BUILDING RETROFITS: Retrofitting Myhrenenga Housing, Norway

Models used: Theory of Planned Behaviour

SMART METERING: Smart metering pilots, Switzerland

Models used: Behavioural Economics, social norming

SMEs: Crown loans for SME energy savings, New Zealand

Models used: Classical economics then shared learning

objectives for the next 6 months

Subtask I - Helicopter Overview:
· Finish collection of templates of models and case studies
· Finish analysis of templates and interactive report-back
· All information to be put onto wiki
· Analyse interviews with energy professionals telling their ‘energy stories’
· Collect more energy stories from participating countries (Norway, Netherlands, Switzerland)

Subtask II - Case studies
- Collection of detailed case studies and best practice in four overarching themes
- Includes (filmed) interviews in Austria, Norway, Italy, UAE, Switzerland

Subtask III - Evaluation Tool
- Template to enable better evaluation of successful behaviour change outcomes depending on the stakeholder point of view
- Based on ‘Beyond kWh’ paper by Karlin and Ford (2011)

Subtask V - Expert Platform:
· Continued growth of experts to the platform
· Utilisation of platform, including uploading all content from workshops and Subtasks and Wiki
· Create content including blogs and webcasts for DSM University
· Update whole platform to Ning 3.0 when it goes live
· Continue to foster engagement and ‘matchmaking’ among experts - tell the stories
· Continue publicising of Task 24 - including 4 international conferences (eceee, BECC, UAE, ELCAS)

Subtask 0 - Administration:
· Advisory Group meeting in September (virtual)
· ExCo meeting and report-back Switzerland
• National expert workshops and webinars (NO, CH, 2 webinars)
• ECEEE summer study, ELCAS, BECC conference paper presentations

revised budget

Description personmonths/costs	Cost (Euro)	personmonths Sea Rotmann per subtask	personmonths Ruth Mourik per subtask	total costs Sea Rotmann	total costs Ruth Mourik	total sum
Subtask 0	4500	3	1.5	13500	6750	20250
Subtask 1	4500	6	3	27000	13500	40500
Subtask 2	4500	6	3	27000	13500	40500
Subtask 3	4500	6	3	27000	13500	40500
Subtask 4	4500	5	2.5	22500	11250	33750
Subtask 5	4500	4	2	18000	9000	27000
Total personmonths/costs		30	15	€162000	€54000	€202500

Description costs	Costs	
OAs travel costs	55000	costs travel Sea Rotmann and Ruth Mourik including extended stay in Europe of Sea Rotmann and frequent face to face meetings RM and SR (6 times travel SR to Europe from New Zealand)
stakeholder analyses	5000	separate meetings and costs associated with stakeholder analyses
website and data management	10000	including website, webinars, VC, social media, blogs/vlogs, database etcetera
overheads and incidentals	7500	
Total	€77500	**€280000**

the budget: current

- received to date: €110,000
- travel costs and film, websites, administration etc to date: €27,000 (Ruth €5,000; Sea ~€22,000)
- person months to date: ~ 17 months (12m Sea; 5m DuneWorks) €76,500
- in-kind contributions from countries and experts: >€60,000 (UKERC Meeting Place alone spent >£35,000 on Oxford workshop; NZ sponsored NZD$3600 on workshop in Wellington; NZ ExCo sponsored NA OA NERI Conference attendance NZD $1000)
- experts providing in-kind expertise from: France, Spain, Italy, UK, Sweden, Finland, Austria, Germany, Australia, Portugal, UAE

timetable

Subtasks	2012	2013	2014
Subtask 0 - Admin			
Subtask I - Helicopter Overview			
Subtask II - Case Studies			
Subtask III - Evaluation Template			
Subtask IV - Recommendations			
Subtask V - Expert Platform			

- starting date according to work plan: February 2012
- official starting date according to ExCo (Espoo): July 2012
- If we get 8 or more participating countries (Austria and/or UK), our task will be extended at no extra cost until December 2014

questions or comments?