

Sed Net



Programme

Sediments on the move

10th International SedNet Conference

Venue: Palazzo San Giorgio
Via della Mercanzia 2
16124 Genoa, Italy

Co-organized by DISTAV - University of Genoa, Italy
Hosted/sponsored by the Port Authority of Genoa



14-17 June 2017

with pre-conference
sessions on 13 June 2017

Tuesday 13 June 2017

09.00 - 17.30 Pre-conference sessions of Italian EU projects SEDITERRA and SEDRIPORE

17.30 - 19.00 Icebreaker

Start registration SedNet conference

Wednesday 14 June 2017

08.30 - 09.00 Registration

09.00 - 10.20 **PLENARY OPENING SESSION**

Chairperson: Marc Eisma, chairman SedNet & Port of Rotterdam Authority, NL

09.00 - 09.20

Welcome

- *by Marc Eisma, chairman SedNet & Port of Rotterdam Authority, NL*
- *by Marco Capello, University of Genoa, co-organizer SedNet conference*

09.20 - 09.50

Keynote presentation:

Relevance of sediment management in the context of river basin management planning
Raimund Mair, European Commission – DG Environment

09.50 - 10.20

Keynote presentation:

Small particles, big issue - sediment matters

Peter Heininger, SedNet SG & Federal Institute of Hydrology, Germany

10.20 - 11.00 Coffee break

11.00 - 12.50 **SESSION “SEDIMENTS MOVING TO LAND, AND SOIL MOVING TO WATER”**

Chairpersons: Susanne Heise, SedNet SG & HAW Germany, and Arjan Wijdeveld, Deltares, NL

11.00 - 11.30

Keynote presentation:

Soil-sediment transitions and the implications for the structure and function of restored wetlands

Kate Spencer, Queen Mary University of London, UK

SESSION “SEDIMENT QUALITY CRITERIA: DERIVATION, IMPLEMENTATION AND ENFORCEMENT”

Chairperson: Carmen Casado, SedNet SG & EAWAG-EPFL, Switzerland

11.00 - 11.10

Introduction by chairperson

11.10 - 11.30

Using a pollution-sensitive biotic indicator to assess the predictive ability of Sediment Quality Guidelines (SQGs) for fine sediments
Marvin Brinke, Federal Institute of Hydrology, Germany

11.30 - 11.50

Between floodplain soil and river bed
– linking results from innovative non-
invasive PCDD/F mapping to particle bound
mass flux data

Patrick Jacobs, Tauw, Germany

11.50 - 12.10

A multi-criteria approach supporting the
investigation of a floodplain potentially
contaminated by pesticides

Luca Ziliani, Ramboll Environ, Italy

12.10 - 12.30

The effect of organic matter on shrinkage
and water retention behaviour of organic
dredged sediments

*Leon van Paassen, Arizona State University,
USA*

12.30 - 12.50

Discussion

Stepwise approach for the derivation
of sediment quality criteria at different
spatial scales: case study of mercury
contamination in river basins from North
Spain

*Leire Méndez Fernández, University of the
Basque Country, Spain*

Sediment quality classification based on
Weight of Evidence approach in the recent
Italian regulation

Cristian Mugnai, ISPRA, Italy

Evolution of the monitoring network of
seaports to a consideration of European
priority substances

Julie Droit, Cerema, France

Discussion

12.50 - 14.20

Lunch

14.20 - 17.20

SESSION “EFFECTS OF REMEDIAL MEASURES”

*Chairperson: Pieter de Boer, SedNet SG
& Ministry of Infrastructure and
Environment, NL*

14.20 - 14.40

Long term effect of sediment remediation
- mechanisms of failure and success based
on case studies

*Arne Pettersen, Norwegian Geotechnical
Institute, Norway*

14.40 - 15.00

Remediation of urban waterways in
Flanders – the Bluegreen Network and
Eeklo example

Goedele Vanacker, OVAM, Belgium

15.00 - 15.20

Design of a large-scale remediation
approach of a heavy polluted river - a
balance between remediation, ecological
value and practical limits

Annemie Boden, Antea Group, Belgium

SESSION “DISPOSAL OF SEDIMENTS AT SEA”

*Chairperson: Edward Van Keer, SedNet SG
& Flemish Government, Belgium*

14.20 - 14.35

Alternatives to aquatic
placement applying regional sediment
manufacturing to innovative stabilization
for brownfields beneficial use. Presentation
of Pneumatic Flow Tube Mixing (PFTM).

*Eric Stern, Tipping Point Resources Group,
USA*

14.35 - 14.50

An evaluation of 15
years lowered disposal sites at sea and a
perspective to the future

*Marco Wensveen, Port of Rotterdam
Authority, NL*

14.50 - 15.05

Metal fluxes from a sea
deposit site for mine tailings

*Morten Schaanning, NIVA - Norwegian
Institute for Water Research, Norway*

15.05 - 15.20

Effects of the disposal of
dredged sediments on river bed volumes
and morphological structures

*Axel Winterscheid, Federal Institute of
Hydrology, Germany*



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15.20 - 16.00 Coffee

16.00 - 16.20 Mass flux and forensic assessment using PAHs: informed remediation decision making at one of Canada's most contaminated sites
Tony Walker, Dalhousie University, Canada

16.20 - 16.40 Is the conservative turbidity limit the most environment-friendly approach? A review of the use of turbidity measurements in remediation projects
Håkon Langberg, Norwegian Geotechnical Institute, Norway

16.40 - 17.00 Capping of contaminated seabed in Norway – lessons learned
Jens Laugesen, Det Norske Veritas, Norway

17.00 - 17.20 Discussion

16.00 - 16.15 Impacts on the marine environment by long term use of a deposit site in the German Bight
Uwe Hentschke, Federal Institute of Hydrology, Germany

16.15 - 16.30 The sensitivity of soft-sediment habitats to dredged material dumping
Gert Van Hoey, Institute for Agricultural and Fisheries Science, Belgium

16.30 - 17.20 Discussion

17.30 - 19.30 Welcome reception and poster session

Thursday 15 June 2017

09.00 - 15.20

SESSION "SEDIMENT BALANCE"

Chairperson: *Jos Brils,*
SedNet SG & Deltares, NL

09.00 - 09.10

Welcome and introduction to the session
by session chairman

09.10 - 09.40

Keynote presentation:
Challenges, impacts, and management
opportunities for sediment in large river
basins
*Mathias Kondolf, University of California
Berkeley, USA*

09.40 - 10.00

Biotic impact of different sediment
flushing practices in Italian alpine rivers
Daniele Demartini, Riverment, Italy

10.00 - 10.20

Uncertainty assessment on erosion of
cohesive sediment in the Upper Rhine:
Implications for sediment management
Thomas Hoffmann/Gudrun Hillebrand,
Federal Institute of Hydrology, Germany

10.20 - 11.00

Coffee

11.00 - 11.20

Implications of spatial distribution of
suspended sediment concentrations
on reservoir management, case study
Iffezheim
*Gudrun Hillebrand, Federal Institute of
Hydrology, Germany*

11.20 - 11.40

Regaining sediments: the Orba River lower
reach bank erosions (NW Italy)
*Andrea Mandarino, University of Genova,
Italy*

11.40 - 12.00

Assessment of Vistula delta cone
development under sediment deficit
conditions (Poland)
*Michal Habel, Kazimierz Wielki University,
Poland*

SESSION "SEDIMENT QUALITY"

Chairpersons: *Elena Romano, SedNet SG &
ISPRA, Italy, and Benoit Ferrari, SedNet SG &
EAWAG-EPFL, Switzerland*

09.00 - 09.20

Sediment management
for a living river - the Lahn River case
*Alexandra Brinke, Federal Institute of
Hydrology, Germany*

09.20 - 09.40

Looking for an
appropriate monitoring design for Water
Framework Directive priority substances
targeting biota
Marc Babut, Irstea, France

Organic pollutants and functional
properties of benthic microbial
communities in coastal lagoons
(River Po delta)
Annamaria Zoppini, IRSA-CNR, Italy

Development of a quality triad assessment
method for brackish sediments in Flanders
*Kristine De Schamphelaere, University of
Antwerp, Belgium*

The use of meiofauna in freshwater
sediment assessments: community
responses to contamination
*Arne Hägerbäumer,
University of Bielefeld, Germany*

Preliminary evaluation of metal
contamination in benthic fishes of the Gulf
of Tigullio (north-western Italy)
Anna Reboa, University of Genoa, Italy

Microplastic characterisation in fluvial and
marine sediments: the case of the Gulf of
Tigullio (north-western Italy)
Sara Spadoni, University of Genoa, Italy

12.00 - 12.20

Uncertainty in complex three-dimensional sediment transport models: implications for management
Katherine Cronin, Deltares, NL

Impact of marine traffic and dredging activities on resuspension and release of contaminants from sediments in the Port of Antwerp
Hanne Hetjens, University of Antwerp, Belgium

12.20 - 14.20

Lunch and poster session

14.20 - 14.40

The imperative of sediment management concepts in River Basin Management Plans
Stefan Vollmer/Axel Winterscheid, Federal Institute of Hydrology, Germany

Identification of the different sources of contaminants in the metal impacted Gromolo Torrent and related marine sediments
Sirio Consani, University of Genoa, Italy

14.40 - 15.00

Sediment balance disturbed: so what and what next?
Wrap-up and discussion
Jos Brils, Deltares, NL

Silver (or lead) linings? Innovative technologies to beneficially re-use legacy contaminated marine sediments
Hazel Vandeleur, University College London, Australia

15.00 - 15.20

Discussion

Discussion

15.20 - 16.00

Coffee

16.00 - 18.00

COMBINED SESSION "TRANSBOUNDARY SEDIMENTS / INNOVATIVE MAINTENANCE OF RIVER-DELTA-SEA SYSTEMS"
Chairperson: Henrich Röper, SedNet SG & Hamburg Port Authority, Germany

SESSION "CLIMATE CHANGE; PIANC AND SEDNET THINK CLIMATE!"

Chairperson: Jasmina Obhodas, SedNet SG & Ruder Boskovic Institute, Croatia

16.00 - 16.20

Recent incident putting an international river basin under pressure - Historically high PCB-concentrations on the move
Ilka Carls, Ministry of Environment and Energy, Germany

16.00 - 16.30

Duo-Keynote

presentation:

A quantitative assessment of human interventions and climate change on the West African Sand River
Miguel Toquica, World Bank, and Alessio Giardino, Deltares, NL

16.20 - 16.40

How much suspended particulate matter enters long-term in-channel storage?
Stephan Dietrich/Axel Winterscheid, Federal Institute of Hydrology, Germany

16.30 - 17.00

Navigating a Changing Climate: the role of sediment management in climate change mitigation and adaptation
Jan Brooke, Jan Brooke Environmental Consultant Ltd and Focal Point, PIANC-led Navigating a Changing Climate initiative; and Burton Suedel, U.S. Army Engineer Research and Development Center, USA

16.40 - 17.00

Relevance of moving recent and historic upstream contaminants for Hamburgs dredging strategy and the North Sea
Henrich Röper, Hamburg Port Authority, Germany



17.00 - 17.20

Confined Disposal Facility Slufter: a perfect solution for contaminated sediment in Northwest Europe
Ronald Rutgers, Port of Rotterdam Authority, NL

Contamination of sediments in the Elbe estuary and its sensitivity to climate change
Carmen Kleisinger, Federal Institute of Hydrology, Germany

17.20 - 17.40

The Living Lab for Mud: integrated sediment management based on Building with Nature concepts
Luca Sittoni, Ecoshape / Deltares, NL

Long term hydrodynamics and sediment transport model under future climate change scenario
Sara Ceccon, Ramboll Environ, Italy

17.40 - 18.00

Discussion

The Elbe gives, the Elbe takes.... Flood events probably relocated backwater sediments
Susanne Heise, Hamburg University of Applied Sciences, Germany

20.00 - 22.30

Conference dinner in Palazzo Ducale, Piazza Giacomo Matteotti

Friday 16 June 2017

09.30 - 13.00

SESSION “USING SEDIMENTS AS A RESOURCE – SEDIMENTS IN A CIRCULAR ECONOMY”

Chairpersons: Bruno Lemière, SedNet SG & BRGM, France, and Christelle Dere, Walloon Ministry, Belgium

09.30 - 10.00

Keynote presentation:
Strategies for reusing canal sediments in the Scottish Circular Economy
Richard Lord, University of Strathclyde, UK

10.00 - 10.15

Remediated marine dredged sediments as growing media for agricultural activities: first results from the Hortised project (LIFE14 ENV/IT/000113)
Francesca Tozzi, University of Florence, Italy

10.15 - 10.30

Let's synergize and really start building with nature! Three examples of sediment reuse in The Netherlands
Chiel Lauwerijssen, Tauw Group, NL

10.30 - 10.45

Water Authority Schieland and the Krimpenerwaard, NL, Preventing land subsidence: Using Sediment As a Resource (USAR)
Guido Verweij, HHSK - Water Authority Schieland and the Krimpenerwaard, NL

10.45 - 11.15

Coffee

11.15 - 11.30

Leaching environmental assessment framework for the potential reuse of dredged sediments in concrete
Tristan Lecomte, IMT Lille Douai / University of Lille, France

11.30 - 11.45

BIND-AMOR: flash-calcined dredging sediments of the AMORAS mechanical dewatering plant as cement substitute
Jonas Marlein, Flemish Government, Belgium

SESSION “POLICY FOR SEDIMENT MANAGEMENT”

Chairperson: Goede Vanacker, SedNet SG & OVAM, Belgium

09.30 - 09.45

Sediment quality guidelines in Belgium: approach and implementation
Johnny Teuchies, University of Antwerp, Belgium

09.45 - 10.00

Who should pay for sediment cleanup?
Philip Spadaro, TIG Environmental, USA

Stakeholder value-linked assessment of remedial options: Portland Harbor Superfund Site Sustainability Project (PHSP)
Sabine Apitz, SEA Environmental Decisions Ltd., UK

Fostering sediment issues into the policy agenda: who, how and when?
Mafalda Carapuço, IPMA - Portuguese Institute for the Ocean and Atmosphere, Portugal

A risk assessment evaluation to prioritize contaminated sediment sites
Licia Guzzella, CNR IRSA, Water Research Institute, Italy

A protocol for assessing sediment toxicity in reservoirs before flushing
Laura Marziali, CNR IRSA, Water Research Institute, Italy

The Rhone Sediment Observatory: a multi-partner platform for basic and applied research on the Rhone river valley (France)
Olivier Radakovitch, Aix-Marseille University, France

11.45 - 12.00	Building of a subgrade road layer based on marine sediment with experimental monitoring <i>Malo Le Guern, ESITC Caen, France</i>	Developing an evidence base for in situ contaminated sediment hazards in England <i>Ian Dennis, Royal HaskoningDHV, UK</i>
12.00 - 12.15	GeDSeT, understanding sediment contamination and behaviour to facilitate its reuse and contribution to the circular economy of minerals <i>Bruno Lemière, BRGM, France</i>	The development of a remediation action plan for a contaminated fjord in Norway, hosting a biological important submerged macrophyte meadow <i>Marianne Olsen, Norwegian Institute for Water Research, Norway</i>
12.15 - 12.30	Circular economy applications of dredged sediments: from pilot experiments towards fulfilling the needs of the economy and the society <i>Arjan Wijdeveld, Deltares, NL</i>	12.15 - 13.00 Discussion
12.30 - 13.00	Discussion	

13.00 - 14.00 Lunch

14.00 - 15.00 PLENARY CLOSING SESSION

Chairperson: Marc Eisma, chairman SedNet & Port of Rotterdam Authority, NL

14.00 - 14.45 Reporting back on conference sessions
by session chairpersons

14.45 - 15.00 Policy brief / SedNet Round Table Discussion

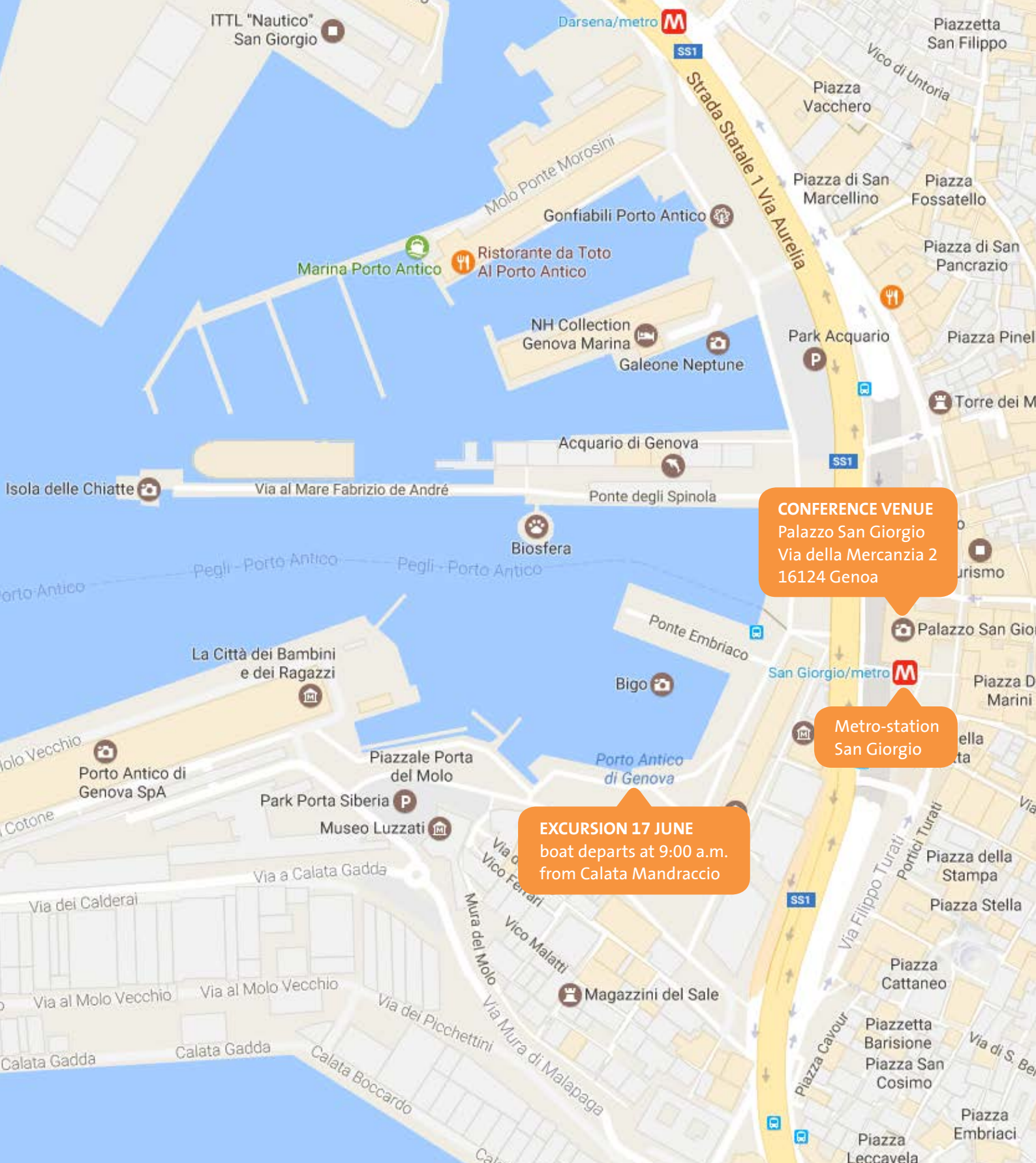
15.00 - 17.30 PARALLEL WORKSHOPS

15.00 - 17.30 Parallel workshops (to be confirmed during the conference):

- *Sediment quality standards*
- *Sediment balance*
- *Communication on science*
- *Possibly more...*

Saturday 17 June 2017

09.00 - 14.00 Excursion by boat to the Protected Marine Area of Portofino, including visit to the Old Monastery / San Fruttuoso. Departure at 09.00 a.m. from Calata Mandraccio (in front of Palazzo San Giorgio)



CONFERENCE VENUE

Palazzo San Giorgio
Via della Mercanzia 2
16124 Genoa

Metro-station
San Giorgio

EXCURSION 17 JUNE

boat departs at 9:00 a.m.
from Calata Mandraccio

Further information:

You will find background information on the conference themes on:

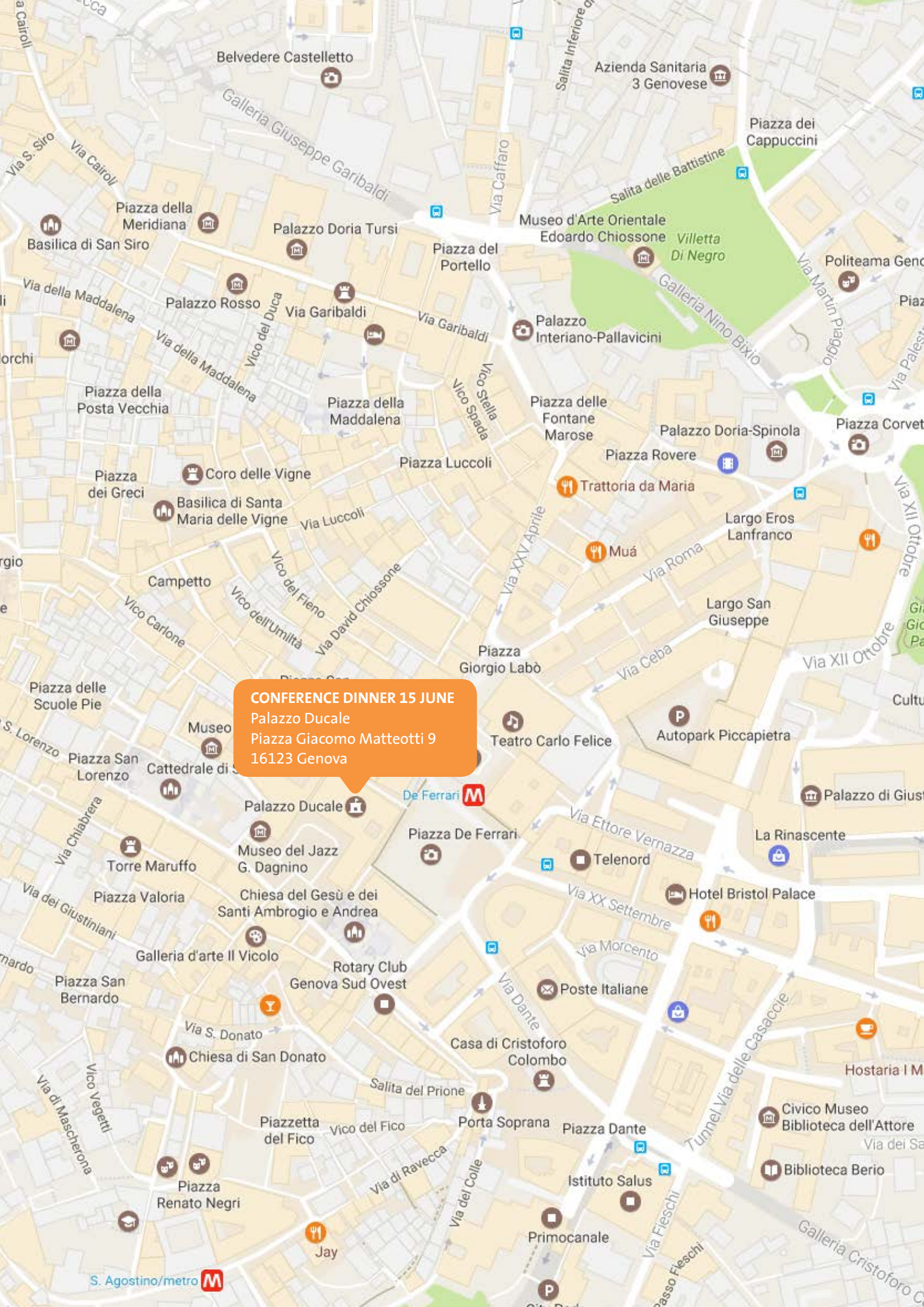
<http://sednet.org/wp-content/uploads/2016/10/Call-for-abstracts-SedNet-Genoa.pdf>

Practical information such as hotel accommodation, a small map of Genoa, travel to Genoa, and how to register to the conference on :

<http://sednet.org/events/sednet-conference-2017>

CONFERENCE DINNER 15 JUNE

Palazzo Ducale
Piazza Giacomo Matteotti 9
16123 Genova





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Further Information

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Sed Net



SedNet is the European network which aims to incorporate sediment issues and knowledge into European strategies to support the achievement of good environmental status and to develop new tools for sediment management. Its focus is on all sediment quality and quantity issues at the river basin scale, ranging from freshwater to estuarine and marine sediments. SedNet brings together experts from science, administration, industry and consultants. It interacts with the various networks in Europe that operate at national or international level or that focus on specific fields (such as science, policy making, sediment management, industry, education). Special attention was devoted in recent years to the integration of sediment management in the WFD implementation process, and particularly in the River Basin Management Plans.

For further information about SedNet see
www.sednet.org