REQUEST # 67836
Innovative Anti-Fingerprint Coating

RESPONSE DUE DATE: May 1, 2012

MANAGER: O. Yanagisawa

SOLUTION PROVIDER HELP DESK
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Opportunity
Material supply, processing contract, joint/contract development, licensing

Timeline
Feasibility validation: about half year
Completion of development: 1~2 year

Financials
(details to be discussed)

REQUEST FOR PROPOSAL DESCRIPTION
NineSigma, representing Toray Industries, Inc., invites proposals for innovative anti-fingerprint coating technologies that have high transparency and glossiness.

Requirements:
Technologies are sought that satisfy the following requirements when coated on a transparent substrate:
- Transparency: parallel transmittance ≥ 88%
- Glossiness: 60° glossiness ≥ 130%
- Anti-fingerprint properties:
  - Reducing contact angle of oleic acid: ≥ 75°
  - Adhesion of fingerprints with much sebum can be easily wiped off
- Manufacturing process: can be coated on a plastic film
- Safety: does not use a material that is clearly harmful to the human body

BACKGROUND
Recently, there has been a sharp increase in the demand for touch panels used for smart phones, etc. An important characteristic for touch panels is an anti-fingerprint property in order to prevent their deterioration, and various types of lipophobic/lipophilic coating technologies have been proposed. However, these technologies are still not at a level to be sufficiently effective under all possible conditions, so breakthrough technologies are desired.

So far, Toray Industries has been seeking technical solutions in their own company and existing networks, but they have not yet found a promising technology. On the other hand, if this technology can be commercialized, a market will be created on the scale of an annual coating area of 6,000,000 m². Therefore, they have decided to seek solutions by issuing this open request widely to engineers and researchers in related fields throughout the world.

POSSIBLE APPROACHES
Anticipated approaches include, but are not necessarily limited to, the following:
- Wet coating of antifouling materials:
  - Use of non-fluorine solvents
- Dry coating of antifouling materials:
  - Sputtering
  - Vacuum vapor adhesion
**ANTICIPATED PROJECT PHASES OR PROJECT PLAN**

The client will review proposals and key publications. They may ask clarifying questions before selecting suitable candidates for collaboration. Once candidates are selected, the client will execute non-disclosure agreements (NDA) in order to seek further information disclosure and discuss possible development approaches.

Once the best candidates will be selected, the client will purchase the material or execute contracts/joint development agreements with partners and proceed to verify the proposed technology.

Specifics of the collaboration will be negotiated between the parties concerned.

**ITEMS TO BE INCLUDED IN THE PROPOSAL**

Respondents should submit proposals using the Response Template (https://www.myninesigma.com/sites/public/_layouts/ProposalTemplates/Response_Template_67836.doc) and include the following items:

- Overview of the proposed technology
- Development plan
- Desired collaboration with the client
- Overview of the organization and prior results

**RESPONDING TO THIS REQUEST**

**NON-CONFIDENTIAL DISCLOSURE**

By submitting a Response you represent that the Response does not and will not be deemed to contain any confidential information of any kind whatsoever.

Your Response should be an executive summary (about 3 pages). The Response should briefly describe the technical approach and provide information on technology performance, background, and description of the responding team and their related experience. A Response Template is available from our website.

By submitting a Response, you acknowledge that NineSigma’s client reserves the sole and absolute right and discretion to select for award all, some, or none of the Responses received for this announcement. NineSigma’s client also may choose to select only specific tasks within a proposal for award. NineSigma’s client has the sole and absolute discretion to determine all award amounts.

**RESPONSE EVALUATION**

NineSigma’s client will evaluate the Response using the following criteria:

- Overall scientific and technical merit of the proposed approach
- Approach to proof of concept or performance
- Potential for proprietary position (i.e., is the technology novel or patentable)
- Economic potential of concept
- Respondent’s capabilities and related experience
- Realism of the proposed plan and cost estimates

The client will contact respondents with highly responsive proposals for next steps.